mededeling
nummer **108**

# drinkwater uit oppervlaktewater

## meetresultaten

RIWA

mededeling
nummer **108**

# drinkwater uit oppervlaktewater

## meetresultaten

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INHOUD

TEN GELEIDE

Deze KIWA-mededeling bevat de analyseresultaten van het onderzoek uitgevoerd in het kader van het VEWIN-speurwerkprojekt "Drinkwater uit Oppervlaktewater". De uitvoering en de bespreking van de resultaten van dit onderzoek zijn beschreven in KIWA-mededeling nr.107.
De nu voorliggende KIWA-mededeling nr.108 bevat de bijlagen A tot en met E van KIWA-mededeling nr.107 en deze vormen samen met KIWA-mededeling nr.109 ("Uitgebreide Samenvatting") één geheel. Voor een juiste interpretatie van de getabelleerde resultaten is het van belang zich op de hoogte te stellen van de inhoud van KIWA-mededeling nr.107.

# 1 BIJLAGE A RESULTATEN ORIËNTEREND ONDERZOEK

In deze bijlage zijn weergegeven de gevonden gehalten voor de diverse parameters uit het oriënterend onderzoek. De gehanteerde notatie is als volgt:

<0.1 : aangetoond, gehalte <0.1 µg/l
\+ : aangetoond, niet kwantificeerbaar
\- : niet aangetoond
nb : niet bepaald

Alle waarden zijn gehalten in µg/l, met uitzondering van DOC, welke in mg/l is vermeld.
De monsterpunten zijn gecodeerd met a t/m e, overeenkomend met de beschrijving zoals gebruikt in KIWA mededeling nr.107. Als eerste parameter is de datum van monsterneming vermeld.

1.1 Leiduin

a=WRK-verdeelvijver
b=na duininfiltratie
c=rein

| parameter | a | b | c |
|---|---|---|---|
| dd | 870519 | 870519 | 870519 |
| trichloormethaan | 0.4 | 0.1 | - |
| 1,2-dichloorethaan | <0.1 | <0.1 | <0.1 |
| tetrahydrofuraan | 0.1 | - | - |
| dimethyldisulfide | - | <0.1 | - |
| EOX | 1.4 | 0.3 | 0.2 |
| AOX | 15 | 4.4 | 8.8 |
| DOC (mg/l) | 2.2 | 2.1 | 2.1 |

1.2 Castricum

a=na duininfiltratie
b=rein

| parameter | a | b |
|---|---|---|
| dd | 870519 | 870519 |
| trichloormethaan | - | <0.1 |
| dichlooretheen | <0.1 | <0.1 |
| 1,2-dichloorethaan | 0.1 | 0.1 |
| 1,2-dichloorpropaan | <0.1 | - |
| tetrachlooretheen | <0.1 | - |
| dichloorbenzeen | <0.1 | - |
| bis(2-chloorisopropyl)ether | <0.1 | <0.1 |
| isobutanol | + | - |
| tetrahydrofuraan | 0.1 | <0.1 |
| EOX | 0.3 | 0.3 |
| AOX | 10 | 15 |
| DOC (mg/l) | 1.7 | 1.9 |

1.3 Scheveningen

a=Afgedamde Maas voor infiltratie
b=na duininfiltratie
c=rein

| parameter | a | b | c |
|---|---|---|---|
| dd | 870601 | 870601 | 870601 |
| trichloormethaan | 14 | 0.1 | <0.1 |
| chloorbroommethaan | 0.2 | - | - |
| dichloorbroommethaan | 11 | - | - |
| chloordibroommethaan | 4 | - | - |
| dichloorjoodmethaan | 0.1 | - | - |
| dibroommethaan | 0.1 | - | - |
| tribroommethaan | 0.3 | - | - |
| 1,2-dichloorethaan | - | <0.1 | - |
| trichlooretheen | - | <0.1 | - |
| tetrachlooretheen | - | <0.1 | - |
| dichloorbenzeen | - | <0.1 | - |
| bis(chloorisopropyl)ether | - | <0.1 | - |
| tetrahydrofuraan | <0.1 | <0.1 | - |
| 1,3-dioxolaan | <0.1 | <0.1 | - |
| dimethyldisulfide | - | <0.1 | - |
| EOX | 1.0 | 0.2 | 0.2 |
| AOX | 57 | 17 | 15 |
| DOC (mg/l) | 3.2 | 2.1 | 1.6 |

1.4 Monster

a=Afgedamde Maas voor infiltratie
b=na duininfiltratie
c=voorfiltraat
d=rein

| parameter | a | b | c | d |
|---|---|---|---|---|
| dd | 870601 | 870601 | 870601 | 870601 |
| trichloormethaan | 14 | 0.7 | 0.6 | 0.6 |
| chloorbroommethaan | 0.2 | - | - | - |
| dichloorbroommethaan | 9 | 0.2 | 0.2 | 0.2 |
| chloordibroommethaan | 3 | - | - | - |
| dibroommethaan | 0.1 | - | - | - |
| dichloorjoodmethaan | <0.1 | - | - | - |
| tribroommethaan | 0.2 | - | - | - |
| tetrahydrofuraan | <0.1 | <0.1 | 0.1 | <0.1 |
| dimethyldisulfide | - | <0.1 | <0.1 | - |
| EOX | 1.0 | 0.1 | 0.2 | 0.4 |
| AOX | 53 | 15 | 12 | 15 |
| DOC (mg/l) | 3.0 | 3.9 | 4.0 | 2.8 |

1.5 Wijk aan Zee

a=na duininfiltratie
b=rein, niet onthard
c=rein, deels onthard

| parameter | a | b | c |
|---|---|---|---|
| dd | 870519 | 870519 | 870519 |
| trichloormethaan | <0.1 | <0.1 | <0.1 |
| alkanen (C15-C18) | 0.5 | - | - |
| tetrahydrofuraan | 0.1 | <0.1 | <0.1 |
| EOX | 0.2 | 0.2 | 0.2 |
| AOX | 2.9 | 2.2 | <2 |
| DOC (mg/l) | 2.0 | 2.0 | 2.2 |

1.6 Haamstede

a=ruw infiltraat
b=rein

| parameter | a | b |
|---|---|---|
| dd | 870702 | 870702 |
| trichloormethaan | <0.1 | - |
| tetrahydrofuraan | <0.1 | - |
| dimethyldisulfide | - | <0.1 |
| EOX | <0.1 | 0.2 |
| AOX | 6 | <5 |
| DOC (mg/l) | 1.5 | 1.6 |

1.7 Ouddorp

a=ruw infiltraat
b=rein

| parameter | a | b |
|---|---|---|
| dd | 870702 | 870702 |
| trichloormethaan | <0.1 | 0.3 |
| dichloorbroommethaan | - | 0.4 |
| chloordibroommethaan | - | 0.4 |
| tribroommethaan | - | 0.1 |
| 1,2-dichloorpropaan | <0.1 | - |
| tetrahydrofuraan | <0.1 | - |
| dimethyldisulfide | <0.1 | - |
| EOX | <0.1 | <0.1 |
| AOX | 13 | 17 |
| DOC (mg/l) | 3.6 | 3.4 |

1.8 St. Jansteen

a=ruw na infiltratie
b=rein

| parameter | a | b |
|---|---|---|
| dd | 870702 | 870702 |
| trichloormethaan | - | <0.1 |
| tetrahydrofuraan | <0.1 | - |
| dimethyldisulfide | <0.1 | - |
| EOX | <0.1 | 0.3 |
| AOX | 10 | 9.5 |
| DOC (mg/l) | 5.3 | 5.1 |

1.9 Katwijk

a=ruw, De Pan
b=ruw, vliegveld
c=rein

| parameter | a | b | c |
|---|---|---|---|
| dd | 871020 | 871020 | 871020 |
| trichloormethaan | 0.2 | <0.1 | 0.2 |
| dichloorbroommethaan | - | <0.1 | 0.2 |
| chloordibroommethaan | - | 0.2 | 0.1 |
| 1,2-dichloorpropaan | <0.1 | - | - |
| C3-benzenen | - | <0.1 | - |
| tetrahydrofuraan | - | <0.1 | <0.1 |
| dimethyldisulfide | - | <0.1 | - |
| dimethyltrisulfide | - | <0.1 | - |
| methylisothiocyanaat | 0.3 | - | - |
| EOX | 1.1 | 0.2 | 0.1 |
| AOX | 34 | 11 | 10 |
| DOC (mg/l) | nb | 10 | 8.4 |

1.10 Enschede

a=ruw Twentekanaal
b=uitlaat spaarbekken
c=voor chloring
d=rein
e=rein

| parameter | a | b | c | d | e |
|---|---|---|---|---|---|
| dd | 870525 | 870525 | 870803 | 870803 | 870525 |
| trichloormethaan | 0.2 | 0.2 | <0.1 | 5 | 14 |
| dichloorbroommethaan | - | - | - | 2 | 8 |
| chloordibroommethaan | - | - | - | 0.3 | 3 |
| chloorbroomjoodmethaan | - | - | - | 0.1 | 0.4 |
| dichloorjoodmethaan | - | - | - | 0.4 | 1 |
| tribroommethaan | - | - | - | - | 0.2 |
| trichloornitromethaan | - | - | - | - | + |
| dichlooretheen | 0.2 | <0.1 | - | - | - |
| 1,2-dichloorethaan | 0.1 | - | - | - | - |
| 1,1,1-trichloorethaan | <0.1 | <0.1 | - | - | - |
| trichlooretheen | <0.1 | - | - | - | - |
| tetrachlooretheen | <0.1 | - | - | - | - |
| trichloorbenzeen | 0.1 | 0.1 | - | - | - |
| alkanen (C9-C12) | 0.2 | 0.3 | - | - | 0.3 |
| dimethylbenzenen | <0.1 | - | - | - | - |
| C3-benzenen | <0.1 | - | - | - | - |
| isooctanol | 1 | 2 | - | - | 2 |
| dimethyldisulfide | <0.1 | <0.1 | - | - | - |
| dimethyltrisulfide | <0.1 | <0.1 | - | - | - |
| mogelijk: 1,2-epithiopropaan | - | - | - | - | + |
| EOX | 0.8 | 0.9 | 0.2 | 0.5 | 1.7 |
| AOX | 29 | 27 | 19 | 62 | 110 |
| DOC (mg/l) | 10 | 9.1 | 6.2 | 5.6 | 5.9 |

1.11 Weesperkarspel

a=ruw Amsterdam-Rijnkanaal
b=ruw polder
c=na snelfiltratie
d=rein

| parameter | a | b | c | d |
|---|---|---|---|---|
| dd | 870519 | 870519 | 870519 | 870519 |
| trichloormethaan | 0.5 | - | <0.1 | <0.1 |
| 1,2-dichloorethaan | 0.2 | - | - | - |
| 1,1,1-trichloorethaan | 0.1 | - | - | - |
| tetrachlooretheen | <0.1 | - | - | - |
| dichloorbenzeen | <0.1 | - | - | - |
| bis(chloorisopropyl)ether | <0.1 | - | - | - |
| tetrahydrofuraan | 0.7 | - | - | - |
| methyldioxolaan | <0.1 | - | - | - |
| alkanen (C6-C7) | - | <0.1 | <0.1 | <0.1 |
| tolueen | - | <0.1 | - | <0.1 |
| C3-benzenen | - | - | <0.1 | - |
| naftaleen | - | 0.1 | - | - |
| benzaldehyde | <0.1 | - | - | - |
| C7H14O | - | - | - | 0.1 |
| dimethyldisulfide | <0.1 | <0.1 | <0.1 | - |
| dimethyltrisulfide | <0.1 | - | <0.1 | - |
| EOX | 1.0 | 0.3 | 0.2 | 0.2 |
| AOX | 19 | 7 | 4 | 2 |
| DOC (mg/l) | 3.2 | 7.9 | 5.8 | 3.9 |

1.12 Braakman

a=polderwater na bekken
b=deelmonster dubbellaagsfilter
c=voor desinfectie
d=rein
e=rein

| parameter | a | b | c | d | e |
|---|---|---|---|---|---|
| dd | 870702 | 870702 | 871021 | 871021 | 870702 |
| trichloormethaan | 0.2 | 0.2 | 0.1 | - | <0.1 |
| trichloorethaan | <0.1 | - | - | - | <0.1 |
| tolueen | - | <0.1 | - | - | 0.4 |
| ethylbenzeen | - | - | - | - | 0.2 |
| m+p-dimethylbenzeen | - | - | - | - | 0.2 |
| o-dimethylbenzeen | - | - | - | - | <0.1 |
| tetrahydrofuraan | - | <0.1 | 0.2 | <0.1 | <0.1 |
| butanol | + | + | - | - | + |
| dimethyldisulfide | <0.1 | <0.1 | - | - | - |
| EOX | 0.1 | 0.3 | 0.7 | 0.5 | 0.2 |
| AOX | 14 | 14 | <5 | 10 | <5 |
| DOC (mg/l) | 9.5 | 5.0 | nb | nb | 0.2 |

1.13 Kralingen

a=ruw Biesbosch leiding
b=na koolfiltratie
c=rein

| parameter | a | b | c |
|---|---|---|---|
| dd | 870629 | 870629 | 870629 |
| trichloormethaan | 0.3 | 0.1 | 0.8 |
| dichloorbroommethaan | - | - | 2 |
| chloordibroommethaan | - | - | 7 |
| chloorbroomjoodmethaan | - | - | <0.1 |
| dibroommethaan | - | - | <0.1 |
| tribroommethaan | - | - | 8 |
| naftaleen | - | <0.1 | - |
| tetrahydrofuraan | <0.1 | - | - |
| dimethyldisulfide | <0.1 | - | - |
| onbekende stikstofverbinding | - | - | + |
| EOX | <0.1 | <0.1 | 2.0 |
| AOX | 11 | 5 | 27 |
| DOC (mg/l) | 2.8 | 1.3 | 1.5 |

1.14 Berenplaat

a=ruw Biesbosch leiding
b=voor nachloring
c=rein

| parameter | a | b | c |
|---|---|---|---|
| dd | 870629 | 870629 | 870629 |
| trichloormethaan | 0.3 | 10 | 10 |
| dichloorbroommethaan | - | 5 | 11 |
| chloordibroommethaan | - | 1 | 6 |
| dichloorjoodmethaan | - | 0.5 | 1 |
| chloorbroomjoodmethaan | - | <0.1 | 0.5 |
| tribroommethaan | - | <0.1 | 2 |
| dibroomjoodmethaan | - | - | 0.1 |
| trichloornitromethaan | - | - | + |
| tetrahydrofuraan | <0.1 | <0.1 | <0.1 |
| dimethyldisulfide | <0.1 | - | - |
| onbekende stikstofverbinding | + | - | - |
| benzaldehyde | <0.1 | - | <0.1 |
| EOX | <0.1 | 0.7 | 1.6 |
| AOX | 11 | 61 | 83 |
| DOC (mg/l) | 2.9 | 2.4 | 2.5 |

1.15 Dordrecht

a=bufferbekken
b=voor koolfiltratie
c=rein

| parameter | a | b | c |
|---|---|---|---|
| dd | 870629 | 870629 | 870629 |
| trichloormethaan | 0.3 | 0.1 | 0.5 |
| dichloorbroommethaan | - | - | 0.3 |
| chloordibroommethaan | - | - | 0.1 |
| tetrachlooretheen | - | <0.1 | - |
| tetrahydrofuraan | <0.1 | 0.1 | 0.2 |
| n-hexanal | - | <0.1 | - |
| mogelijk: nitromethaan | - | + | - |
| dimethyldisulfide | 0.2 | - | - |
| dimethyltrisulfide | <0.1 | - | - |
| benzaldehyde | <0.1 | <0.1 | <0.1 |
| EOX | <0.1 | <0.1 | <0.1 |
| AOX | 11 | 6 | 5.5 |
| DOC (mg/l) | 2.7 | 1.8 | 1.6 |

1.16 Zevenbergen

a=ruwwater Biesbosch
b=deelmonster dubbellaagsfilter
c=voor desinfectiechloring
d=rein
e=rein

| parameter | a | b | c | d | e |
|---|---|---|---|---|---|
| dd | 870629 | 870629 | 870629 | 870629 | 870629 |
| trichloormethaan | 0.2 | 16 | 4 | 4 | 4 |
| dichloorbroommethaan | - | 14 | 0.9 | 2 | 5 |
| chloordibroommethaan | - | 8 | 0.2 | 5 | 8 |
| dichloorjoodmethaan | - | 2 | - | - | - |
| chloorbroomjooodmethaan | - | 0.6 | - | - | - |
| tribroommethaan | - | 2 | - | 6 | 8 |
| dibroomjoodmethaan | - | 0.1 | - | - | - |
| trichloornitromethaan | - | + | - | - | - |
| tetrahydrofuraan | <0.1 | <0.1 | 0.2 | <0.1 | <0.1 |
| dimethyldisulfide | <0.1 | - | - | - | - |
| onbekende zuurstofverbinding (kookpunt <100 °C) | - | 0.3 | - | - | - |
| EOX | 0.3 | 2.6 | 0.4 | 2.2 | 2.5 |
| AOX | 11 | 100 | 12 | 33 | 45 |
| DOC (mg/l) | 2.7 | 2.3 | nb | nb | 1.2 |

1.17 Andijk

a=ruwwater bekken
b=voor koolfiltratie
c=na koolfiltratie
d=rein

| parameter | a | b | c | d |
|---|---|---|---|---|
| dd | 870519 | 870519 | 870519 | 870519 |
| trichloormethaan | 0.2 | 23 | 22 | 22 |
| dichloorbroommethaan | - | 17 | 16 | 16 |
| chloordibroommethaan | - | 16 | 11 | 7 |
| dichloorjoodmethaan | - | 0.4 | - | - |
| dibroommethaan | - | - | 0.2 | 0.2 |
| tribroommethaan | - | 3 | 0.8 | 0.4 |
| chloorbroomjoodmethaan | - | 0.2 | - | - |
| broomchloormethaan | - | - | 0.2 | 0.3 |
| mogelijk: 1,1-dichlooraceton | - | + | - | - |
| tolueen | <0.1 | <0.1 | - | - |
| C5-aldehyde | - | 0.2 | - | - |
| dimethyldisulfide | 0.1 | - | - | - |
| dimethyltrisulfide | 0.1 | - | - | - |
| EOX | 0.3 | 5.8 | 1.7 | 1.1 |
| AOX | 8.1 | 160 | 35 | 25 |
| DOC (mg/l) | 5.7 | 4.1 | 2.1 | 1.6 |

1.18 Groningen

a=ruw Drentsche Aa
b=ruw grondwater
c=rein

| parameter | a | b | c |
|---|---|---|---|
| dd | 870525 | 870525 | 870525 |
| trichloormethaan | <0.1 | - | 3 |
| dichloorbroommethaan | - | - | 2 |
| chloordibroommethaan | - | - | 0.4 |
| dichloorjoodmethaan | - | - | 0.1 |
| 1,2-dichloorpropaan | <0.1 | - | - |
| alkanen (C10-C11) | - | - | <0.1 |
| benzeen | <0.1 | - | - |
| tolueen | <0.1 | <0.1 | <0.1 |
| ethylbenzeen | 0.2 | <0.1 | - |
| dimethylbenzenen | 1.0 | <0.1 | <0.1 |
| C3-benzenen | 0.9 | <0.1 | - |
| C4-benzenen | 0.4 | - | - |
| isooctanol | - | - | 1 |
| dimethyldisulfide | <0.1 | - | - |
| EOX | <0.1 | <0.1 | 0.3 |
| AOX | 19 | 6 | 40 |
| DOC (mg/l) | 7.8 | 2.8 | 2.6 |

# 2 BIJLAGE B RESULTATEN STOFGERICHT ONDERZOEK EN GROEPSPARAMETERS

In deze bijlage zijn de resultaten getabelleerd van het stofgericht onderzoek en van een aantal van de groepsparameter bepalingen, voor zover zij niet op XAD-isolaties betrekking hebben.
Alle gehalten zijn weergegeven als µg/l met uitzondering van DOC en anionische detergenten (beide in mg/l).
Als eerste parameter is de datum van monsterneming vermeld.

## 2.1 Leiduin

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880516 | 880516 | 880516 |
| DOC (mg/l) | 1.9 | 2.8 | 1.8 |
| AOX | 23 | 12 | 9 |
| fenolindex | <0.5 | <0.5 | <0.5 |
| anion. detergenten (mg/l) | 0.04 | 0.02 | 0.01 |
| EDTA | 8.9 | 2.8 | 4.5 |
| NTA | <1.0 | <1.0 | <1.0 |
| vluchtige aromaten: | | | |
| ·benzeen | <0.1 | <0.1 | <0.1 |
| ·tolueen | <0.1 | <0.1 | <0.1 |
| ·m+p-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·o-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·ethylbenzeen | <0.1 | <0.1 | <0.1 |
| overige vluchtigen: | <0.1 | <0.1 | <0.1 |
| PAK: | | | |
| ·fenantreen | 0.33 | 0.63 | 0.45 |
| ·antraceen | 0.03 | 0.06 | 0.04 |
| ·fluorantheen | 0.23 | 0.42 | 0.31 |
| ·pyreen | 0.05 | 0.09 | 0.06 |
| ·benzo(a)antraceen | <0.01 | <0.01 | <0.01 |
| ·chryseen | <0.01 | <0.01 | <0.01 |
| ·benzo(b)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(k)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(a)pyreen | <0.01 | <0.01 | <0.01 |
| ·dibenzo(a,h)antraceen | <0.01 | <0.01 | <0.01 |
| ·benzo(ghi)perileen | <0.01 | <0.01 | <0.01 |
| ·indeno(1,2,3 cd)pyreen | <0.01 | <0.01 | <0.01 |
| PCB (totaal) | <0.1 | <0.1 | <0.1 |
| OCP: | | | |
| ·HCB | <0.01 | <0.01 | <0.01 |
| ·α-HCH | <0.01 | <0.01 | <0.01 |
| ·β-HCH | <0.01 | <0.01 | <0.01 |
| ·γ-HCH | <0.01 | <0.01 | <0.01 |
| ·aldrin | <0.01 | <0.01 | <0.01 |
| ·heptachloor | <0.01 | <0.01 | <0.01 |
| ·heptachloorepoxide | <0.01 | <0.01 | <0.01 |
| ·α-endosulfan | <0.01 | <0.01 | <0.01 |
| ·β-endosulfan | <0.01 | <0.01 | <0.01 |
| ·dieldrin | <0.01 | <0.01 | <0.01 |
| ·endrin | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDE | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDD | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDT | <0.01 | <0.01 | <0.01 |

| parameter | ruw | half | rein |
|---|---|---|---|
| vluchtige BM + verwant: | | | |
| ·MITC | <0.05 | <0.05 | <0.05 |
| ·1,1-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,3-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·cis-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·trans-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·1,2,3-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2,2-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| bentazon | 0.40 | 0.13 | 0.08 |
| dinitrofenolen: | | | |
| ·2,4-dinitrofenol | 0.05 | <0.04 | <0.04 |
| ·DNOC | <0.03 | <0.03 | <0.03 |
| ·dinoseb | 0.10 | <0.03 | <0.03 |
| ·dinoterb | 0.05 | <0.03 | <0.03 |
| triazines + verwant: | | | |
| ·atrazin | 0.19 | 0.06 | 0.02 |
| ·simazin | 0.11 | 0.07 | <0.02 |
| ·desethylatrazin | 0.10 | <0.04 | <0.04 |
| ·desisopropylatrazin | 0.05 | 0.03 | <0.02 |
| ·propazin | <0.02 | <0.02 | <0.02 |
| ·cyanazin | <0.02 | <0.02 | <0.02 |
| ·desmetryn | 0.04 | 0.03 | <0.02 |
| ·terbutryn | <0.05 | <0.05 | <0.05 |
| ·terbutylazin | <0.02 | <0.02 | <0.02 |
| ·promethrin | <0.03 | <0.03 | <0.03 |
| ·metribuzin | <0.05 | <0.05 | <0.05 |
| ·ethoprofos | <0.02 | <0.02 | <0.02 |
| ·ethylparathion | <0.02 | <0.02 | <0.02 |
| chlooraceetamiden: | | | |
| ·alachloor | 0.03 | <0.02 | <0.02 |
| ·metolachloor | 0.03 | <0.02 | <0.02 |
| ·metazachloor | 0.06 | 0.02 | <0.02 |
| fungiciden: | | | |
| ·carbendazim | <0.03 | <0.03 | <0.03 |
| ·thiabendazol | <0.06 | <0.06 | <0.06 |
| ·2-AB | <0.07 | <0.07 | <0.07 |
| organotin verbindingen | 0.014 | 0.006 | 0.005 |
| cholinesterase remming | 0.26 | <0.1 | <0.1 |

| parameter | ruw | half | rein |
|---|---|---|---|
| chloorfenolen: | | | |
| (let op: mogelijke omwisseling ruw en half) | | | |
| ·2-chloorfenol | < | < | < |
| ·3-chloorfenol | < | < | < |
| ·4-chloorfenol | < | < | < |
| ·2,3-dichloorfenol | < | < | < |
| ·2,4-dichloorfenol | < | < | < |
| ·2,5-dichloorfenol | < | 0.04 | < |
| ·2,6-dichloorfenol | < | < | < |
| ·3,4-dichloorfenol | < | < | < |
| ·3,5-dichloorfenol | < | < | < |
| ·2,3,4-trichloorfenol | < | < | < |
| ·2,3,5-trichloorfenol | < | < | < |
| ·2,3,6-trichloorfenol | < | 0.39 | 0.02 |
| ·2,4,5-trichloorfenol | < | < | < |
| ·2,4,6-trichloorfenol | < | < | < |
| ·3,4,5-trichloorfenol | 0.04 | < | 0.04 |
| ·2,3,4,5-tetrachloorfenol | < | < | < |
| ·2,3,4,6-tetrachloorfenol | < | < | < |
| ·2,3,5,6-tetrachloorfenol | < | < | < |
| ·pentachloorfenol | < | 0.01 | < |
| ·4,6-dichloor-o-cresol | < | < | < |
| OPP: | | | |
| ·dichloorvos | <0.01 | <0.01 | <0.01 |
| ·mevinfos | <0.01 | <0.01 | <0.01 |
| ·TEPP | <0.01 | <0.01 | <0.01 |
| ·omethoaat | <0.02 | <0.02 | <0.02 |
| ·sulfotepp | <0.01 | <0.01 | <0.01 |
| ·dimethoaat | <0.01 | 0.03 | <0.01 |
| ·diazinon | <0.01 | <0.01 | <0.01 |
| ·fosfamidon | <0.02 | <0.02 | <0.02 |
| ·parathion-methyl | <0.01 | <0.01 | <0.01 |
| ·malathion | <0.01 | <0.01 | <0.01 |
| ·parathion-ethyl | <0.01 | <0.01 | <0.01 |
| ·trichloronaat | <0.01 | <0.01 | <0.01 |
| ·chloorfenvinfos | <0.01 | <0.01 | <0.01 |
| ·methidathion | <0.01 | <0.01 | <0.01 |
| ·bromofos-ethyl | <0.01 | <0.01 | <0.01 |
| ·vamidothion | <0.01 | <0.01 | <0.01 |
| ·tetrachloorvinfos | <0.01 | <0.01 | <0.01 |
| ·azinfos-methyl | <0.01 | <0.01 | <0.01 |
| ·pyrazofos | <0.01 | <0.01 | <0.01 |
| ·temefos | <0.05 | <0.05 | <0.05 |

## 2.2 Scheveningen

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880606 | 880606 | 880606 |
| DOC (mg/l) | 3.6 | 2.9 | 3.2 |
| AOX | 59 | <5 | <5 |
| fenolindex | 0.5 | 0.5 | <0.5 |
| anion. detergenten (mg/l) | 0.02 | <0.01 | <0.01 |
| EDTA | <1.0 | <1.0 | <1.0 |
| NTA | 2.6 | 2.5 | <1.0 |
| vluchtige aromaten: | | | |
| ·benzeen | <0.1 | <0.1 | <0.1 |
| ·tolueen | <0.1 | <0.1 | <0.1 |
| ·m+p-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·o-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·ethylbenzeen | <0.1 | <0.1 | <0.1 |
| overige vluchtigen: | <0.1 | <0.1 | <0.1 |
| PAK: | | | |
| ·fenantreen | 0.13 | 0.11 | 0.13 |
| ·antraceen | <0.01 | <0.01 | <0.01 |
| ·fluorantheen | 0.05 | 0.04 | 0.06 |
| ·pyreen | 0.02 | 0.03 | 0.02 |
| ·benzo(a)antraceen | <0.01 | <0.01 | <0.01 |
| ·chryseen | <0.01 | <0.01 | <0.01 |
| ·benzo(b)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(k)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(a)pyreen | <0.01 | <0.01 | <0.01 |
| ·dibenzo(a,h)antraceen | <0.01 | <0.01 | <0.01 |
| ·benzo(ghi)perileen | <0.01 | <0.01 | <0.01 |
| ·indeno(1,2,3 cd)pyreen | <0.01 | <0.01 | <0.01 |
| PCB (totaal) | <0.1 | <0.1 | <0.1 |
| OCP: | | | |
| ·HCB | <0.01 | <0.01 | <0.01 |
| ·α-HCH | <0.01 | <0.01 | <0.01 |
| ·β-HCH | <0.01 | <0.01 | <0.01 |
| ·γ-HCH | 0.01 | <0.01 | <0.01 |
| ·aldrin | <0.01 | <0.01 | <0.01 |
| ·heptachloor | <0.01 | <0.01 | <0.01 |
| ·heptachloorepoxide | <0.01 | <0.01 | <0.01 |
| ·α-endosulfan | <0.01 | <0.01 | <0.01 |
| ·β-endosulfan | <0.01 | <0.01 | <0.01 |
| ·dieldrin | <0.01 | <0.01 | <0.01 |
| ·endrin | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDE | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDD | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDT | <0.01 | <0.01 | <0.01 |

| parameter | ruw | half | rein |
|---|---|---|---|
| vluchtige BM + verwant: | | | |
| ·MITC | <0.05 | <0.05 | <0.05 |
| ·1,1-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,3-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·cis-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·trans-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·1,2,3-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2,2-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| bentazon | <0.02 | <0.02 | <0.02 |
| dinitrofenolen: | | | |
| ·2,4-dinitrofenol | <0.04 | <0.04 | <0.04 |
| ·DNOC | <0.03 | <0.03 | <0.03 |
| ·dinoseb | <0.03 | <0.03 | <0.03 |
| ·dinoterb | <0.03 | <0.03 | <0.03 |
| triazines + verwant: | | | |
| ·atrazin | 0.18 | <0.02 | 0.02 |
| ·simazin | 0.16 | <0.02 | <0.02 |
| ·desethylatrazin | <0.04 | <0.04 | <0.04 |
| ·desisopropylatrazin | <0.02 | <0.02 | <0.02 |
| ·propazin | <0.02 | <0.02 | <0.02 |
| ·cyanazin | <0.02 | <0.02 | <0.02 |
| ·desmetryn | <0.05 | <0.05 | <0.05 |
| ·terbutryn | <0.05 | <0.05 | <0.05 |
| ·terbutylazin | <0.02 | <0.02 | <0.02 |
| ·promethrin | <0.03 | <0.03 | <0.03 |
| ·metribuzin | <0.05 | <0.05 | <0.05 |
| ·ethoprofos | <0.02 | <0.02 | <0.02 |
| ·ethylparathion | <0.02 | <0.02 | <0.02 |
| chlooraceetamiden: | | | |
| ·alachloor | <0.02 | <0.02 | 0.05 |
| ·metolachloor | <0.02 | <0.02 | <0.02 |
| ·metazachloor | <0.02 | <0.02 | <0.02 |
| fungiciden: | | | |
| ·carbendazim | <0.03 | <0.03 | <0.03 |
| ·thiabendazol | <0.06 | <0.06 | <0.06 |
| ·2-AB | <0.07 | <0.07 | <0.07 |
| organotin verbindingen | 0.004 | <0.002 | <0.002 |
| cholinesterase remming | <0.10 | <0.10 | <0.10 |

| parameter | ruw | half | rein |
|---|---|---|---|
| chloorfenolen: | | | |
| ·2-chloorfenol | < | < | < |
| ·3-chloorfenol | < | < | < |
| ·4-chloorfenol | < | < | < |
| ·2,3-dichloorfenol | < | < | < |
| ·2,4-dichloorfenol | < | 0.02 | 0.05 |
| ·2,5-dichloorfenol | < | 0.04 | 0.10 |
| ·2,6-dichloorfenol | < | < | < |
| ·3,4-dichloorfenol | < | < | < |
| ·3,5-dichloorfenol | < | < | < |
| ·2,3,4-trichloorfenol | < | < | < |
| ·2,3,5-trichloorfenol | 0.03 | 0.02 | 0.04 |
| ·2,3,6-trichloorfenol | < | < | < |
| ·2,4,5-trichloorfenol | < | < | < |
| ·2,4,6-trichloorfenol | < | < | < |
| ·3,4,5-trichloorfenol | < | < | < |
| ·2,3,4,5-tetrachloorfenol | < | < | < |
| ·2,3,4,6-tetrachloorfenol | < | < | < |
| ·2,3,5,6-tetrachloorfenol | < | < | 0.01 |
| ·pentachloorfenol | 0.03 | 0.04 | 0.06 |
| ·4,6-dichloor-o-cresol | < | < | < |
| OPP: | | | |
| ·dichloorvos | <0.01 | 0.09 | <0.01 |
| ·mevinfos | <0.01 | <0.01 | <0.01 |
| ·TEPP | <0.01 | <0.01 | <0.01 |
| ·omethoaat | <0.02 | <0.02 | <0.02 |
| ·sulfotepp | <0.01 | <0.01 | <0.01 |
| ·dimethoaat | <0.01 | <0.01 | <0.01 |
| ·diazinon | 0.04 | 0.01 | <0.01 |
| ·fosfamidon | <0.02 | <0.02 | <0.02 |
| ·parathion-methyl | <0.01 | <0.01 | <0.01 |
| ·malathion | <0.01 | <0.01 | <0.01 |
| ·parathion-ethyl | <0.01 | <0.01 | <0.01 |
| ·trichloronaat | <0.01 | <0.01 | <0.01 |
| ·chloorfenvinfos | <0.01 | <0.01 | <0.01 |
| ·methidathion | <0.01 | <0.01 | <0.01 |
| ·bromofos-ethyl | <0.01 | <0.01 | <0.01 |
| ·vamidothion | <0.01 | <0.01 | <0.01 |
| ·tetrachloorvinfos | <0.01 | <0.01 | <0.01 |
| ·azinfos-methyl | <0.01 | 0.02 | <0.01 |
| ·pyrazofos | <0.01 | <0.01 | <0.01 |
| ·temefos | <0.05 | <0.05 | <0.05 |

## 2.3 Ouddorp

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880704 | 880704 | 880704 |
| DOC (mg/l) | 2.7 | 4.7 | 3.0 |
| AOX | 25 | 19 | 11 |
| fenolindex | <0.5 | <0.5 | <0.5 |
| anion. detergenten (mg/l) | 0.04 | 0.01 | <0.01 |
| EDTA | 4.3 | <1.0 | <1.0 |
| NTA | <1.0 | <1.0 | <1.0 |
| vluchtige aromaten: | | | |
| ·benzeen | <0.1 | <0.1 | <0.1 |
| ·tolueen | <0.1 | <0.1 | <0.1 |
| ·m+p-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·o-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·ethylbenzeen | <0.1 | <0.1 | <0.1 |
| overige vluchtigen: | <0.1 | <0.1 | <0.1 |
| PAK: | | | |
| ·fenantreen | 0.07 | 0.11 | 0.06 |
| ·antraceen | <0.01 | <0.01 | <0.01 |
| ·fluorantheen | 0.07 | 0.08 | 0.04 |
| ·pyreen | 0.03 | 0.03 | 0.01 |
| ·benzo(a)antraceen | <0.01 | <0.01 | <0.01 |
| ·chryseen | <0.01 | <0.01 | <0.01 |
| ·benzo(b)fluorantheen | 0.02 | <0.01 | <0.01 |
| ·benzo(k)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(a)pyreen | <0.01 | <0.01 | <0.01 |
| ·dibenzo(a,h)antraceen | <0.01 | <0.01 | <0.01 |
| ·benzo(ghi)perileen | <0.01 | <0.01 | <0.01 |
| ·indeno(1,2,3 cd)pyreen | <0.01 | <0.01 | <0.01 |
| PCB (totaal) | <0.1 | <0.1 | <0.1 |
| OCP: | | | |
| ·HCB | <0.01 | <0.01 | <0.01 |
| ·α-HCH | <0.01 | <0.01 | <0.01 |
| ·β-HCH | <0.01 | <0.01 | <0.01 |
| ·γ-HCH | 0.01 | <0.01 | <0.01 |
| ·aldrin | <0.01 | <0.01 | <0.01 |
| ·heptachloor | <0.01 | <0.01 | <0.01 |
| ·heptachloorepoxide | <0.01 | <0.01 | <0.01 |
| ·α-endosulfan | <0.01 | <0.01 | <0.01 |
| ·β-endosulfan | <0.01 | <0.01 | <0.01 |
| ·dieldrin | <0.01 | <0.01 | <0.01 |
| ·endrin | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDE | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDD | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDT | <0.01 | <0.01 | <0.01 |

| parameter | ruw | half | rein |
|---|---|---|---|
| vluchtige BM + verwant: | | | |
| ·MITC | <0.05 | <0.05 | <0.05 |
| ·1,1-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,3-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·cis-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·trans-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·1,2,3-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2,2-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| bentazon | 0.30 | <0.02 | <0.02 |
| dinitrofenolen: | | | |
| ·2,4-dinitrofenol | 0.10 | <0.04 | <0.04 |
| ·DNOC | 0.03 | <0.03 | <0.03 |
| ·dinoseb | <0.03 | <0.03 | <0.03 |
| ·dinoterb | <0.03 | <0.03 | <0.03 |
| triazines + verwant: | | | |
| ·atrazin | 0.34 | 0.03 | <0.02 |
| ·simazin | 0.16 | 0.02 | <0.02 |
| ·desethylatrazin | <0.04 | <0.04 | <0.04 |
| ·desisopropylatrazin | <0.02 | <0.02 | <0.02 |
| ·propazin | <0.02 | <0.02 | <0.02 |
| ·cyanazin | <0.02 | <0.02 | <0.02 |
| ·desmetryn | <0.05 | <0.05 | <0.05 |
| ·terbutryn | <0.05 | <0.05 | <0.05 |
| ·terbutylazin | <0.02 | <0.02 | <0.02 |
| ·promethrin | <0.03 | <0.03 | <0.03 |
| ·metribuzin | <0.05 | <0.05 | <0.05 |
| ·ethoprofos | <0.02 | <0.02 | <0.02 |
| ·ethylparathion | <0.02 | <0.02 | <0.02 |
| chlooraceetamiden: | | | |
| ·alachloor | <0.02 | 0.04 | <0.02 |
| ·metolachloor | <0.02 | <0.02 | <0.02 |
| ·metazachloor | 0.03 | 0.02 | <0.02 |
| fungiciden: | | | |
| ·carbendazim | <0.03 | <0.03 | <0.03 |
| ·thiabendazol | <0.06 | <0.06 | <0.06 |
| ·2-AB | <0.07 | <0.07 | <0.07 |
| organotin verbindingen | 0.004 | <0.002 | <0.002 |
| cholinesterase remming | 0.34 | 0.22 | 0.10 |

| parameter | ruw | half | rein |
|---|---|---|---|
| chloorfenolen: | | | |
| ·2-chloorfenol | < | < | < |
| ·3-chloorfenol | < | < | < |
| ·4-chloorfenol | < | < | < |
| ·2,3-dichloorfenol | < | < | < |
| ·2,4-dichloorfenol | < | < | < |
| ·2,5-dichloorfenol | < | < | < |
| ·2,6-dichloorfenol | < | < | < |
| ·3,4-dichloorfenol | < | < | < |
| ·3,5-dichloorfenol | < | < | < |
| ·2,3,4-trichloorfenol | < | < | < |
| ·2,3,5-trichloorfenol | < | < | < |
| ·2,3,6-trichloorfenol | < | < | < |
| ·2,4,5-trichloorfenol | < | < | < |
| ·2,4,6-trichloorfenol | < | < | < |
| ·3,4,5-trichloorfenol | < | < | < |
| ·2,3,4,5-tetrachloorfenol | < | < | < |
| ·2,3,4,6-tetrachloorfenol | < | < | < |
| ·2,3,5,6-tetrachloorfenol | < | < | < |
| ·pentachloorfenol | < | < | < |
| ·4,6-dichloor-o-cresol | < | < | < |
| OPP: | | | |
| ·dichloorvos | <0.01 | <0.01 | <0.01 |
| ·mevinfos | <0.01 | <0.01 | <0.01 |
| ·TEPP | <0.01 | <0.01 | <0.01 |
| ·omethoaat | <0.02 | <0.02 | <0.02 |
| ·sulfotepp | <0.01 | <0.01 | <0.01 |
| ·dimethoaat | 0.02 | 0.01 | 0.01 |
| ·diazinon | <0.01 | <0.01 | <0.01 |
| ·fosfamidon | <0.02 | <0.02 | <0.02 |
| ·parathion-methyl | <0.01 | <0.01 | <0.01 |
| ·malathion | <0.01 | <0.01 | <0.01 |
| ·parathion-ethyl | <0.01 | <0.01 | <0.01 |
| ·trichloronaat | <0.01 | <0.01 | <0.01 |
| ·chloorfenvinfos | <0.01 | <0.01 | <0.01 |
| ·methidathion | <0.01 | <0.01 | <0.01 |
| ·bromofos-ethyl | <0.01 | <0.01 | <0.01 |
| ·vamidothion | <0.01 | <0.01 | <0.01 |
| ·tetrachloorvinfos | <0.01 | <0.01 | <0.01 |
| ·azinfos-methyl | 0.23 | 0.06 | <0.01 |
| ·pyrazofos | <0.01 | <0.01 | <0.01 |
| ·temefos | <0.05 | <0.05 | <0.05 |

## 2.4 Enschede

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880627 | 880627 | 880627 |
| DOC (mg/l) | 10.9 | 5.5 | 5.7 |
| AOX | 33 | 18 | 49 |
| fenolindex | 1.0 | <0.5 | <0.5 |
| anion. detergenten (mg/l) | 0.05 | 0.01 | <0.01 |
| EDTA | 6.6 | 1.4 | <1.0 |
| NTA | 1.8 | <1.0 | <1.0 |
| vluchtige aromaten: | | | |
| ·benzeen | <0.1 | <0.1 | <0.1 |
| ·tolueen | <0.1 | <0.1 | <0.1 |
| ·m+p-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·o-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·ethylbenzeen | <0.1 | <0.1 | <0.1 |
| overige vluchtigen: | | | |
| ·1,2-dichloorethaan | 0.2 | <0.1 | <0.1 |
| PAK: | | | |
| ·fenantreen | 0.21 | 0.17 | 0.06 |
| ·antraceen | 0.02 | 0.02 | <0.01 |
| ·fluorantheen | 0.16 | 0.11 | 0.04 |
| ·pyreen | 0.04 | 0.05 | 0.01 |
| ·benzo(a)antraceen | <0.01 | <0.01 | <0.01 |
| ·chryseen | <0.01 | <0.01 | <0.01 |
| ·benzo(b)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(k)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(a)pyreen | <0.01 | <0.01 | <0.01 |
| ·dibenzo(a,h)antraceen | <0.01 | <0.01 | <0.01 |
| ·benzo(ghi)perileen | <0.01 | <0.01 | <0.01 |
| ·indeno(1,2,3 cd)pyreen | <0.01 | <0.01 | <0.01 |
| PCB (totaal) | <0.1 | <0.1 | <0.1 |
| OCP: | | | |
| ·HCB | <0.01 | <0.01 | <0.01 |
| ·α-HCH | 0.03 | 0.01 | <0.01 |
| ·β-HCH | 0.02 | 0.02 | <0.01 |
| ·γ-HCH | 0.02 | <0.01 | <0.01 |
| ·aldrin | <0.01 | <0.01 | <0.01 |
| ·heptachloor | <0.01 | <0.01 | <0.01 |
| ·heptachloorepoxide | <0.01 | <0.01 | <0.01 |
| ·α-endosulfan | <0.01 | <0.01 | <0.01 |
| ·β-endosulfan | <0.01 | <0.01 | <0.01 |
| ·dieldrin | <0.01 | <0.01 | <0.01 |
| ·endrin | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDE | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDD | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDT | <0.01 | <0.01 | <0.01 |

| parameter | ruw | half | rein |
|---|---|---|---|
| vluchtige BM + verwant: | | | |
| ·MITC | <0.05 | <0.05 | <0.05 |
| ·1,1-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,3-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·cis-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·trans-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·1,2,3-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2,2-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| bentazon | <0.02 | <0.02 | <0.02 |
| dinitrofenolen: | | | |
| ·2,4-dinitrofenol | 0.07 | <0.04 | <0.04 |
| ·DNOC | 0.05 | <0.03 | <0.03 |
| ·dinoseb | <0.03 | <0.03 | <0.03 |
| ·dinoterb | <0.03 | <0.03 | <0.03 |
| triazines + verwant: | | | |
| ·atrazin | 0.26 | 0.06 | 0.06 |
| ·simazin | 0.18 | 0.07 | 0.06 |
| ·desethylatrazin | <0.04 | <0.04 | <0.04 |
| ·desisopropylatrazin | <0.02 | <0.02 | <0.02 |
| ·propazin | <0.02 | <0.02 | <0.02 |
| ·cyanazin | <0.02 | <0.02 | <0.02 |
| ·desmetryn | <0.05 | <0.05 | <0.05 |
| ·terbutryn | <0.05 | <0.05 | <0.05 |
| ·terbutylazin | <0.02 | <0.02 | <0.02 |
| ·promethrin | <0.03 | <0.03 | <0.03 |
| ·metribuzin | <0.05 | <0.05 | <0.05 |
| ·ethoprofos | <0.02 | <0.02 | <0.02 |
| ·ethylparathion | <0.02 | <0.02 | <0.02 |
| chlooraceetamiden: | | | |
| ·alachloor | <0.02 | <0.02 | <0.02 |
| ·metolachloor | <0.02 | <0.02 | <0.02 |
| ·metazachloor | <0.02 | <0.02 | <0.02 |
| fungiciden: | | | |
| ·carbendazim | <0.03 | <0.03 | <0.03 |
| ·thiabendazol | <0.06 | <0.06 | <0.06 |
| ·2-AB | <0.07 | <0.07 | <0.07 |
| organotin verbindingen | <0.002 | <0.002 | <0.002 |
| cholinesterase remming | <0.10 | <0.10 | <0.10 |

| parameter | ruw | half | rein |
|---|---|---|---|
| chloorfenolen: | | | |
| ·2-chloorfenol | <0.07 | < | < |
| ·3-chloorfenol | < | < | < |
| ·4-chloorfenol | < | < | < |
| ·2,3-dichloorfenol | < | < | < |
| ·2,4-dichloorfenol | < | < | < |
| ·2,5-dichloorfenol | < | < | < |
| ·2,6-dichloorfenol | < | < | < |
| ·3,4-dichloorfenol | < | < | <0.04 |
| ·3,5-dichloorfenol | < | < | < |
| ·2,3,4-trichloorfenol | < | < | < |
| ·2,3,5-trichloorfenol | < | < | < |
| ·2,3,6-trichloorfenol | <0.08 | <0.61 | <0.03 |
| ·2,4,5-trichloorfenol | < | < | < |
| ·2,4,6-trichloorfenol | < | < | < |
| ·3,4,5-trichloorfenol | < | < | < |
| ·2,3,4,5-tetrachloorfenol | < | < | < |
| ·2,3,4,6-tetrachloorfenol | < | < | < |
| ·2,3,5,6-tetrachloorfenol | < | < | < |
| ·pentachloorfenol | < | < | < |
| ·4,6-dichloor-o-cresol | < | < | < |
| OPP: | | | |
| ·dichloorvos | <0.01 | <0.01 | <0.01 |
| ·mevinfos | <0.01 | <0.01 | <0.01 |
| ·TEPP | <0.01 | <0.01 | <0.01 |
| ·omethoaat | <0.02 | <0.02 | <0.02 |
| ·sulfotepp | <0.01 | <0.01 | <0.01 |
| ·dimethoaat | <0.01 | <0.01 | <0.01 |
| ·diazinon | <0.01 | <0.01 | <0.01 |
| ·fosfamidon | <0.02 | <0.02 | <0.02 |
| ·parathion-methyl | <0.01 | <0.01 | <0.01 |
| ·malathion | <0.01 | <0.01 | <0.01 |
| ·parathion-ethyl | <0.01 | <0.01 | <0.01 |
| ·trichloronaat | <0.01 | <0.01 | <0.01 |
| ·chloorfenvinfos | <0.01 | <0.01 | <0.01 |
| ·methidathion | <0.01 | <0.01 | <0.01 |
| ·bromofos-ethyl | <0.01 | <0.01 | <0.01 |
| ·vamidothion | <0.01 | <0.01 | <0.01 |
| ·tetrachloorvinfos | <0.01 | <0.01 | <0.01 |
| ·azinfos-methyl | <0.01 | <0.01 | <0.01 |
| ·pyrazofos | <0.01 | <0.01 | <0.01 |
| ·temefos | <0.05 | <0.05 | <0.05 |

## 2.5 Weesperkarspel

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880620 | 880620 | 880620 |
| DOC (mg/l) | 9.6 | 7.3 | 4.2 |
| AOX | 5 | <5 | <5 |
| fenolindex | 3.0 | 4.5 | 0.5 |
| anion. detergenten (mg/l) | 0.04 | 0.02 | <0.01 |
| EDTA | <1.0 | <1.0 | <1.0 |
| NTA | 7.0 | <1.0 | <1.0 |
| vluchtige aromaten: | | | |
| ·benzeen | <0.1 | <0.1 | <0.1 |
| ·tolueen | <0.1 | <0.1 | <0.1 |
| ·m+p-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·o-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·ethylbenzeen | <0.1 | <0.1 | <0.1 |
| overige vluchtigen: | <0.1 | <0.1 | <0.1 |
| PAK: | | | |
| ·fenantreen | 0.06 | 0.04 | <0.01 |
| ·antraceen | <0.01 | <0.01 | <0.01 |
| ·fluorantheen | 0.03 | 0.08 | <0.01 |
| ·pyreen | 0.01 | 0.08 | <0.01 |
| ·benzo(a)antraceen | <0.01 | <0.01 | <0.01 |
| ·chryseen | <0.01 | <0.01 | <0.01 |
| ·benzo(b)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(k)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(a)pyreen | <0.01 | <0.01 | <0.01 |
| ·dibenzo(a,h)antraceen | <0.01 | <0.01 | <0.01 |
| ·benzo(ghi)perileen | <0.01 | <0.01 | <0.01 |
| ·indeno(1,2,3 cd)pyreen | <0.01 | <0.01 | <0.01 |
| PCB (totaal) | <0.1 | <0.1 | <0.1 |
| OCP: | | | |
| ·HCB | <0.01 | <0.01 | <0.01 |
| ·α-HCH | <0.01 | <0.01 | <0.01 |
| ·β-HCH | <0.01 | <0.01 | <0.01 |
| ·γ-HCH | <0.01 | <0.01 | <0.01 |
| ·aldrin | <0.01 | <0.01 | <0.01 |
| ·heptachloor | <0.01 | <0.01 | <0.01 |
| ·heptachloorepoxide | <0.01 | <0.01 | <0.01 |
| ·α-endosulfan | <0.01 | <0.01 | <0.01 |
| ·β-endosulfan | <0.01 | <0.01 | <0.01 |
| ·dieldrin | <0.01 | <0.01 | <0.01 |
| ·endrin | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDE | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDD | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDT | <0.01 | <0.01 | <0.01 |

| parameter | ruw | half | rein |
|---|---|---|---|
| vluchtige BM + verwant: | | | |
| ·MITC | <0.05 | <0.05 | <0.05 |
| ·1,1-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,3-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·cis-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·trans-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·1,2,3-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2,2-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| bentazon | <0.02 | <0.02 | <0.02 |
| dinitrofenolen: | | | |
| ·2,4-dinitrofenol | <0.04 | <0.04 | <0.04 |
| ·DNOC | <0.03 | <0.03 | <0.03 |
| ·dinoseb | <0.03 | <0.03 | <0.03 |
| ·dinoterb | <0.03 | <0.03 | <0.03 |
| triazines + verwant: | | | |
| ·atrazin | <0.02 | <0.02 | <0.02 |
| ·simazin | <0.02 | <0.02 | <0.02 |
| ·desethylatrazin | <0.04 | <0.04 | <0.04 |
| ·desisopropylatrazin | <0.02 | <0.02 | <0.02 |
| ·propazin | <0.02 | <0.02 | <0.02 |
| ·cyanazin | <0.02 | <0.02 | <0.02 |
| ·desmetryn | <0.05 | <0.05 | <0.05 |
| ·terbutryn | <0.05 | <0.05 | <0.05 |
| ·terbutylazin | <0.02 | <0.02 | <0.02 |
| ·promethrin | <0.03 | <0.03 | <0.03 |
| ·metribuzin | <0.05 | <0.05 | <0.05 |
| ·ethoprofos | <0.02 | <0.02 | <0.02 |
| ·ethylparathion | <0.02 | <0.02 | <0.02 |
| chlooraceetamiden: | | | |
| ·alachloor | <0.02 | <0.02 | <0.02 |
| ·metolachloor | <0.02 | <0.02 | <0.02 |
| ·metazachloor | <0.02 | <0.02 | <0.02 |
| fungiciden: | | | |
| ·carbendazim | <0.03 | <0.03 | <0.03 |
| ·thiabendazol | <0.06 | <0.06 | <0.06 |
| ·2-AB | <0.07 | <0.07 | <0.07 |
| organotin verbindingen | <0.002 | <0.002 | <0.002 |
| cholinesterase remming | <0.10 | <0.10 | <0.10 |

| parameter | ruw | half | rein |
|---|---|---|---|
| chloorfenolen: | | | |
| ·2-chloorfenol | < | < | < |
| ·3-chloorfenol | < | < | < |
| ·4-chloorfenol | < | < | < |
| ·2,3-dichloorfenol | <0.17 | < | < |
| ·2,4-dichloorfenol | < | < | < |
| ·2,5-dichloorfenol | < | < | < |
| ·2,6-dichloorfenol | < | < | <0.04 |
| ·3,4-dichloorfenol | < | < | < |
| ·3,5-dichloorfenol | < | < | < |
| ·2,3,4-trichloorfenol | < | < | < |
| ·2,3,5-trichloorfenol | < | < | < |
| ·2,3,6-trichloorfenol | < | <0.13 | <0.18 |
| ·2,4,5-trichloorfenol | < | < | < |
| ·2,4,6-trichloorfenol | < | < | < |
| ·3,4,5-trichloorfenol | < | <0.02 | <0.02 |
| ·2,3,4,5-tetrachloorfenol | < | < | < |
| ·2,3,4,6-tetrachloorfenol | < | < | < |
| ·2,3,5,6-tetrachloorfenol | < | < | < |
| ·pentachloorfenol | < | <0.01 | < |
| ·4,6-dichloor-o-cresol | < | < | < |
| OPP: | | | |
| ·dichloorvos | <0.01 | <0.01 | <0.01 |
| ·mevinfos | <0.01 | <0.01 | <0.01 |
| ·TEPP | <0.01 | <0.01 | <0.01 |
| ·omethoaat | <0.02 | <0.02 | <0.02 |
| ·sulfotepp | <0.01 | <0.01 | <0.01 |
| ·dimethoaat | <0.01 | <0.01 | <0.01 |
| ·diazinon | <0.01 | <0.01 | <0.01 |
| ·fosfamidon | <0.02 | <0.02 | <0.02 |
| ·parathion-methyl | <0.01 | <0.01 | <0.01 |
| ·malathion | <0.01 | <0.01 | <0.01 |
| ·parathion-ethyl | <0.01 | <0.01 | <0.01 |
| ·trichloronaat | <0.01 | <0.01 | <0.01 |
| ·chloorfenvinfos | <0.01 | <0.01 | <0.01 |
| ·methidathion | <0.01 | <0.01 | <0.01 |
| ·bromofos-ethyl | <0.01 | <0.01 | <0.01 |
| ·vamidothion | <0.01 | <0.01 | <0.01 |
| ·tetrachloorvinfos | <0.01 | <0.01 | <0.01 |
| ·azinfos-methyl | <0.01 | <0.01 | <0.01 |
| ·pyrazofos | <0.01 | <0.01 | <0.01 |
| ·temefos | <0.05 | <0.05 | <0.05 |

## 2.6 Kralingen

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880530 | 880530 | 880530 |
| DOC (mg/l) | 2.9 | 1.5 | 1.5 |
| AOX | 26 | <5 | <5 |
| fenolindex | 0.5 | <0.5 | <0.5 |
| anion. detergenten (mg/l) | 0.03 | 0.01 | <0.01 |
| EDTA | 5.2 | 1.2 | 5.8 |
| NTA | <1.0 | <1.0 | <1.0 |
| vluchtige aromaten: | | | |
| ·benzeen | <0.1 | <0.1 | <0.1 |
| ·tolueen | 0.1 | <0.1 | <0.1 |
| ·m+p-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·o-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·ethylbenzeen | <0.1 | <0.1 | <0.1 |
| overige vluchtigen: | <0.1 | <0.1 | <0.1 |
| PAK: | | | |
| ·fenantreen | 0.12 | 0.06 | 0.08 |
| ·antraceen | <0.01 | <0.01 | <0.01 |
| ·fluorantheen | 0.07 | 0.04 | 0.06 |
| ·pyreen | 0.02 | 0.01 | 0.01 |
| ·benzo(a)antraceen | <0.01 | <0.01 | <0.01 |
| ·chryseen | <0.01 | <0.01 | <0.01 |
| ·benzo(b)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(k)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(a)pyreen | <0.01 | <0.01 | <0.01 |
| ·dibenzo(a,h)antraceen | <0.01 | <0.01 | <0.01 |
| ·benzo(ghi)perileen | <0.01 | <0.01 | <0.01 |
| ·indeno(1,2,3 cd)pyreen | <0.01 | <0.01 | <0.01 |
| PCB (totaal) | <0.1 | <0.1 | <0.1 |
| OCP: | | | |
| ·HCB | <0.01 | <0.01 | <0.01 |
| ·α-HCH | <0.01 | <0.01 | <0.01 |
| ·β-HCH | <0.01 | <0.01 | <0.01 |
| ·γ-HCH | 0.01 | <0.01 | <0.01 |
| ·aldrin | <0.01 | <0.01 | <0.01 |
| ·heptachloor | <0.01 | <0.01 | <0.01 |
| ·heptachloorepoxide | <0.01 | <0.01 | <0.01 |
| ·α-endosulfan | <0.01 | <0.01 | <0.01 |
| ·β-endosulfan | <0.01 | <0.01 | <0.01 |
| ·dieldrin | <0.01 | <0.01 | <0.01 |
| ·endrin | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDE | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDD | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDT | <0.01 | <0.01 | <0.01 |

| parameter | ruw | half | rein |
|---|---|---|---|
| vluchtige BM + verwant: | | | |
| ·MITC | <0.05 | <0.05 | <0.05 |
| ·1,1-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,3-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·cis-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·trans-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·1,2,3-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2,2-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| bentazon | <0.02 | <0.02 | <0.02 |
| dinitrofenolen: | | | |
| ·2,4-dinitrofenol | 0.08 | <0.04 | <0.04 |
| ·DNOC | 0.05 | <0.03 | <0.03 |
| ·dinoseb | <0.03 | <0.03 | <0.03 |
| ·dinoterb | <0.03 | <0.03 | <0.03 |
| triazines + verwant: | | | |
| ·atrazin | 0.17 | 0.11 | 0.06 |
| ·simazin | 0.10 | 0.04 | 0.02 |
| ·desethylatrazin | 0.10 | 0.13 | <0.04 |
| ·desisopropylatrazin | <0.02 | <0.02 | <0.02 |
| ·propazin | <0.02 | <0.02 | <0.02 |
| ·cyanazin | <0.02 | <0.02 | <0.02 |
| ·desmetryn | <0.05 | <0.05 | <0.05 |
| ·terbutryn | <0.05 | <0.05 | <0.05 |
| ·terbutylazin | <0.02 | <0.02 | <0.02 |
| ·promethrin | <0.03 | <0.03 | <0.03 |
| ·metribuzin | <0.05 | <0.05 | <0.05 |
| ·ethoprofos | <0.02 | <0.02 | <0.02 |
| ·ethylparathion | <0.02 | <0.02 | <0.02 |
| chlooraceetamiden: | | | |
| ·alachloor | <0.02 | <0.02 | <0.02 |
| ·metolachloor | <0.02 | <0.02 | <0.02 |
| ·metazachloor | <0.02 | <0.02 | <0.02 |
| fungiciden: | | | |
| ·carbendazim | <0.03 | <0.03 | <0.03 |
| ·thiabendazol | <0.06 | <0.06 | <0.06 |
| ·2-AB | <0.07 | <0.07 | <0.07 |
| organotin verbindingen | <0.002 | <0.002 | <0.002 |
| cholinesterase remming | 0.24 | <0.10 | <0.10 |

| parameter | ruw | half | rein |
|---|---|---|---|
| chloorfenolen: | | | |
| ·2-chloorfenol | < | < | < |
| ·3-chloorfenol | < | < | < |
| ·4-chloorfenol | < | < | < |
| ·2,3-dichloorfenol | < | < | < |
| ·2,4-dichloorfenol | < | < | < |
| ·2,5-dichloorfenol | < | < | < |
| ·2,6-dichloorfenol | < | < | <0.04 |
| ·3,4-dichloorfenol | < | < | < |
| ·3,5-dichloorfenol | < | < | < |
| ·2,3,4-trichloorfenol | < | < | < |
| ·2,3,5-trichloorfenol | < | < | < |
| ·2,3,6-trichloorfenol | < | < | < |
| ·2,4,5-trichloorfenol | < | < | < |
| ·2,4,6-trichloorfenol | < | < | < |
| ·3,4,5-trichloorfenol | < | < | < |
| ·2,3,4,5-tetrachloorfenol | < | < | < |
| ·2,3,4,6-tetrachloorfenol | < | < | < |
| ·2,3,5,6-tetrachloorfenol | < | < | < |
| ·pentachloorfenol | <0.05 | < | < |
| ·4,6-dichloor-o-cresol | < | < | < |
| OPP: | | | |
| ·dichloorvos | 0.04 | 0.05 | <0.01 |
| ·mevinfos | <0.01 | <0.01 | <0.01 |
| ·TEPP | <0.01 | <0.01 | <0.01 |
| ·omethoaat | <0.02 | <0.02 | <0.02 |
| ·sulfotepp | <0.01 | <0.01 | <0.01 |
| ·dimethoaat | 0.03 | <0.01 | <0.01 |
| ·diazinon | 0.03 | 0.03 | <0.01 |
| ·fosfamidon | <0.02 | <0.02 | <0.02 |
| ·parathion-methyl | <0.01 | <0.01 | <0.01 |
| ·malathion | <0.01 | <0.01 | <0.01 |
| ·parathion-ethyl | <0.01 | <0.01 | <0.01 |
| ·trichloronaat | <0.01 | <0.01 | <0.01 |
| ·chloorfenvinfos | <0.01 | <0.01 | <0.01 |
| ·methidathion | <0.01 | <0.01 | <0.01 |
| ·bromofos-ethyl | <0.01 | <0.01 | <0.01 |
| ·vamidothion | <0.01 | <0.01 | <0.01 |
| ·tetrachloorvinfos | <0.01 | <0.01 | <0.01 |
| ·azinfos-methyl | <0.01 | <0.01 | <0.01 |
| ·pyrazofos | <0.01 | <0.01 | <0.01 |
| ·temefos | <0.05 | <0.05 | <0.05 |

## 2.7 Andijk

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880523 | 880523 | 880523 |
| DOC (mg/l) | 6.2 | 4.1 | 1.6 |
| AOX | 8 | 126 | 20 |
| fenolindex | <0.5 | <0.5 | <0.5 |
| anion. detergenten (mg/l) | 0.04 | 0.02 | <0.01 |
| EDTA | <1.0 | 3.8 | <1.0 |
| NTA | <1.0 | 1.6 | <1.0 |
| vluchtige aromaten: | | | |
| ·benzeen | <0.1 | <0.1 | <0.1 |
| ·tolueen | <0.1 | <0.1 | <0.1 |
| ·m+p-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·o-methylbenzeen | <0.1 | <0.1 | <0.1 |
| ·ethylbenzeen | <0.1 | <0.1 | <0.1 |
| overige vluchtigen: | | | |
| ·dichlooracetonitril | <0.1 | 0.1 | <0.1 |
| PAK: | | | |
| ·fenantreen | 0.38 | 0.36 | 0.70 |
| ·antraceen | 0.03 | 0.03 | 0.07 |
| ·fluorantheen | 0.24 | 0.25 | 0.48 |
| ·pyreen | 0.06 | 0.06 | 0.10 |
| ·benzo(a)antraceen | <0.01 | <0.01 | <0.01 |
| ·chryseen | <0.01 | <0.01 | <0.01 |
| ·benzo(b)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(k)fluorantheen | <0.01 | <0.01 | <0.01 |
| ·benzo(a)pyreen | <0.01 | <0.01 | <0.01 |
| ·dibenzo(a,h)antraceen | <0.01 | <0.01 | <0.01 |
| ·benzo(ghi)perileen | <0.01 | <0.01 | <0.01 |
| ·indeno(1,2,3 cd)pyreen | <0.01 | <0.01 | <0.01 |
| PCB (totaal) | <0.1 | <0.1 | <0.1 |
| OCP: | | | |
| ·HCB | <0.01 | <0.01 | <0.01 |
| ·α-HCH | <0.01 | <0.01 | <0.01 |
| ·β-HCH | <0.01 | <0.01 | <0.01 |
| ·γ-HCH | <0.01 | <0.01 | <0.01 |
| ·aldrin | <0.01 | <0.01 | <0.01 |
| ·heptachloor | <0.01 | <0.01 | <0.01 |
| ·heptachloorepoxide | <0.01 | <0.01 | <0.01 |
| ·α-endosulfan | <0.01 | <0.01 | <0.01 |
| ·β-endosulfan | <0.01 | <0.01 | <0.01 |
| ·dieldrin | <0.01 | <0.01 | <0.01 |
| ·endrin | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDE | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDD | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDT | <0.01 | <0.01 | <0.01 |

| parameter | ruw | half | rein |
|---|---|---|---|
| vluchtige BM + verwant: | | | |
| ·MITC | <0.05 | <0.05 | <0.05 |
| ·1,1-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,3-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·cis-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·trans-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·1,2,3-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2,2-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| bentazon | 0.04 | <0.04 | 0.06 |
| dinitrofenolen: | | | |
| ·2,4-dinitrofenol | 0.06 | 0.06 | <0.04 |
| ·DNOC | 0.04 | 0.07 | <0.03 |
| ·dinoseb | 0.03 | <0.03 | <0.03 |
| ·dinoterb | <0.03 | <0.03 | <0.03 |
| triazines + verwant: | | | |
| ·atrazin | 0.09 | 0.08 | <0.02 |
| ·simazin | 0.04 | 0.04 | <0.02 |
| ·desethylatrazin | 0.07 | <0.04 | <0.04 |
| ·desisopropylatrazin | <0.02 | <0.02 | <0.02 |
| ·propazin | <0.02 | <0.02 | <0.02 |
| ·cyanazin | <0.02 | <0.02 | <0.02 |
| ·desmetryn | <0.05 | <0.05 | <0.05 |
| ·terbutryn | <0.05 | <0.05 | <0.05 |
| ·terbutylazin | <0.02 | <0.02 | <0.02 |
| ·promethrin | <0.03 | <0.03 | <0.03 |
| ·metribuzin | <0.05 | <0.05 | <0.05 |
| ·ethoprofos | <0.02 | <0.02 | <0.02 |
| ·ethylparathion | <0.02 | <0.02 | <0.02 |
| chlooraceetamiden: | | | |
| ·alachloor | <0.02 | <0.02 | <0.02 |
| ·metolachloor | 0.02 | <0.02 | 0.02 |
| ·metazachloor | 0.05 | <0.02 | 0.02 |
| fungiciden: | | | |
| ·carbendazim | <0.03 | <0.03 | <0.03 |
| ·thiabendazol | <0.06 | <0.06 | <0.06 |
| ·2-AB | <0.07 | <0.07 | <0.07 |
| organotin verbindingen | 0.003 | 0.002 | 0.002 |
| cholinesterase remming | <0.10 | 0.16 | <0.10 |

| parameter | ruw | half | rein |
|---|---|---|---|
| chloorfenolen: | | | |
| ·2-chloorfenol | < | < | < |
| ·3-chloorfenol | < | < | < |
| ·4-chloorfenol | < | < | < |
| ·2,3-dichloorfenol | < | < | < |
| ·2,4-dichloorfenol | < | < | < |
| ·2,5-dichloorfenol | < | < | < |
| ·2,6-dichloorfenol | < | < | < |
| ·3,4-dichloorfenol | < | < | < |
| ·3,5-dichloorfenol | < | < | < |
| ·2,3,4-trichloorfenol | < | < | < |
| ·2,3,5-trichloorfenol | < | < | < |
| ·2,3,6-trichloorfenol | < | < | < |
| ·2,4,5-trichloorfenol | < | < | < |
| ·2,4,6-trichloorfenol | < | < | < |
| ·3,4,5-trichloorfenol | < | < | < |
| ·2,3,4,5-tetrachloorfenol | < | < | < |
| ·2,3,4,6-tetrachloorfenol | < | < | < |
| ·2,3,5,6-tetrachloorfenol | < | < | < |
| ·pentachloorfenol | < | < | < |
| ·4,6-dichloor-o-cresol | < | < | < |
| OPP: | | | |
| ·dichloorvos | <0.01 | <0.01 | <0.01 |
| ·mevinfos | <0.01 | <0.01 | <0.01 |
| ·TEPP | <0.01 | 0.01 | <0.01 |
| ·omethoaat | <0.02 | <0.02 | <0.02 |
| ·sulfotepp | <0.01 | <0.01 | <0.01 |
| ·dimethoaat | <0.01 | <0.01 | <0.01 |
| ·diazinon | <0.01 | <0.01 | <0.01 |
| ·fosfamidon | <0.02 | <0.02 | <0.02 |
| ·parathion-methyl | <0.01 | <0.01 | <0.01 |
| ·malathion | <0.01 | <0.01 | <0.01 |
| ·parathion-ethyl | <0.01 | <0.01 | <0.01 |
| ·trichloronaat | <0.01 | 0.01 | <0.01 |
| ·chloorfenvinfos | <0.01 | <0.01 | <0.01 |
| ·methidathion | <0.01 | <0.01 | <0.01 |
| ·bromofos-ethyl | <0.01 | <0.01 | <0.01 |
| ·vamidothion | <0.01 | <0.01 | <0.01 |
| ·tetrachloorvinfos | <0.01 | <0.01 | <0.01 |
| ·azinfos-methyl | <0.01 | <0.01 | <0.01 |
| ·pyrazofos | <0.01 | <0.01 | <0.01 |
| ·temefos | <0.05 | <0.05 | <0.05 |

## 2.8 Groningen

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880613 | 880613 | 880613 |
| DOC (mg/l) | 8.0 | 4.6 | 3.6 |
| AOX | 16 | 8 | 8 |
| fenolindex | <0.5 | <0.5 | <0.5 |
| anion. detergenten (mg/l) | 0.03 | <0.01 | <0.01 |
| EDTA | <1.0 | <1.0 | <1.0 |
| NTA | 1.5 | <1.0 | <1.0 |
| vluchtige aromaten: | | | |
| ·benzeen | 0.2 | <0.1 | <0.1 |
| ·tolueen | 0.4 | <0.1 | <0.1 |
| ·m+p-methylbenzeen | 0.3 | <0.1 | <0.1 |
| ·o-methylbenzeen | 0.2 | <0.1 | <0.1 |
| ·ethylbenzeen | 0.1 | <0.1 | <0.1 |
| overige vluchtigen: | <0.1 | <0.1 | <0.1 |
| PAK: | | | |
| ·fenantreen | 0.03 | | <0.01 |
| ·antraceen | <0.01 | | <0.01 |
| ·fluorantheen | 0.02 | | <0.01 |
| ·pyreen | 0.01 | | <0.01 |
| ·benzo(a)antraceen | <0.01 | | <0.01 |
| ·chryseen | <0.01 | | <0.01 |
| ·benzo(b)fluorantheen | <0.01 | | <0.01 |
| ·benzo(k)fluorantheen | <0.01 | | <0.01 |
| ·benzo(a)pyreen | <0.01 | | <0.01 |
| ·dibenzo(a,h)antraceen | <0.01 | | <0.01 |
| ·benzo(ghi)perileen | <0.01 | | <0.01 |
| ·indeno(1,2,3 cd)pyreen | <0.01 | | <0.01 |
| PCB (totaal) | <0.1 | <0.1 | <0.1 |
| OCP: | | | |
| ·HCB | <0.01 | <0.01 | <0.01 |
| ·α-HCH | <0.01 | <0.01 | <0.01 |
| ·β-HCH | <0.01 | <0.01 | <0.01 |
| ·γ-HCH | <0.01 | <0.01 | <0.01 |
| ·aldrin | <0.01 | <0.01 | <0.01 |
| ·heptachloor | <0.01 | <0.01 | <0.01 |
| ·heptachloorepoxide | <0.01 | <0.01 | <0.01 |
| ·α-endosulfan | <0.01 | <0.01 | <0.01 |
| ·β-endosulfan | <0.01 | <0.01 | <0.01 |
| ·dieldrin | <0.01 | <0.01 | <0.01 |
| ·endrin | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDE | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDD | <0.01 | <0.01 | <0.01 |
| ·p,p'-DDT | <0.01 | <0.01 | <0.01 |

| parameter | ruw | half | rein |
|---|---|---|---|
| vluchtige BM + verwant: | | | |
| ·MITC | <0.05 | <0.05 | <0.05 |
| ·1,1-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,3-dichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·cis-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·trans-1,3-dichloorpropeen | <0.05 | <0.05 | <0.05 |
| ·1,2,3-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| ·1,2,2-trichloorpropaan | <0.05 | <0.05 | <0.05 |
| bentazon | <0.02 | <0.02 | <0.02 |
| dinitrofenolen: | | | |
| ·2,4-dinitrofenol | <0.04 | <0.04 | <0.04 |
| ·DNOC | 0.03 | 0.03 | <0.03 |
| ·dinoseb | 0.03 | <0.03 | <0.03 |
| ·dinoterb | <0.03 | <0.03 | <0.03 |
| triazines + verwant: | | | |
| ·atrazin | 0.04 | <0.02 | 0.05 |
| ·simazin | 0.55 | 0.09 | 0.34 |
| ·desethylatrazin | <0.04 | <0.04 | <0.04 |
| ·desisopropylatrazin | <0.02 | <0.02 | <0.02 |
| ·propazin | <0.02 | <0.02 | <0.02 |
| ·cyanazin | <0.02 | <0.02 | <0.02 |
| ·desmetryn | <0.05 | <0.05 | <0.05 |
| ·terbutryn | <0.05 | <0.05 | <0.05 |
| ·terbutylazin | <0.02 | <0.02 | <0.02 |
| ·promethrin | <0.03 | <0.03 | <0.03 |
| ·metribuzin | <0.05 | <0.05 | <0.05 |
| ·ethoprofos | <0.02 | <0.02 | <0.02 |
| ·ethylparathion | <0.02 | <0.02 | <0.02 |
| chlooraceetamiden: | | | |
| ·alachloor | 0.11 | <0.02 | <0.02 |
| ·metolachloor | 0.08 | <0.02 | <0.02 |
| ·metazachloor | 0.15 | <0.02 | <0.02 |
| fungiciden: | | | |
| ·carbendazim | <0.03 | <0.03 | <0.03 |
| ·thiabendazol | <0.06 | <0.06 | <0.06 |
| ·2-AB | <0.07 | <0.07 | <0.07 |
| organotin verbindingen | <0.002 | <0.002 | <0.002 |
| cholinesterase remming | 0.11 | <0.10 | <0.10 |

| parameter | ruw | half | rein |
|---|---|---|---|
| chloorfenolen: | | | |
| ·2-chloorfenol | < | < | < |
| ·3-chloorfenol | < | < | < |
| ·4-chloorfenol | < | < | < |
| ·2,3-dichloorfenol | < | < | < |
| ·2,4-dichloorfenol | < | < | < |
| ·2,5-dichloorfenol | < | < | < |
| ·2,6-dichloorfenol | < | < | < |
| ·3,4-dichloorfenol | < | < | < |
| ·3,5-dichloorfenol | < | < | < |
| ·2,3,4-trichloorfenol | < | < | < |
| ·2,3,5-trichloorfenol | < | < | <0.01 |
| ·2,3,6-trichloorfenol | < | <0.10 | < |
| ·2,4,5-trichloorfenol | < | < | < |
| ·2,4,6-trichloorfenol | < | < | < |
| ·3,4,5-trichloorfenol | < | < | < |
| ·2,3,4,5-tetrachloorfenol | < | < | < |
| ·2,3,4,6-tetrachloorfenol | < | < | < |
| ·2,3,5,6-tetrachloorfenol | < | < | < |
| ·pentachloorfenol | <0.02 | < | <0.01 |
| ·4,6-dichloor-o-cresol | < | < | < |
| OPP: | | | |
| ·dichloorvos | <0.01 | <0.01 | <0.01 |
| ·mevinfos | <0.01 | <0.01 | <0.01 |
| ·TEPP | <0.01 | <0.01 | <0.01 |
| ·omethoaat | <0.02 | <0.02 | <0.02 |
| ·sulfotepp | <0.01 | <0.01 | <0.01 |
| ·dimethoaat | <0.01 | 0.09 | <0.01 |
| ·diazinon | <0.01 | <0.01 | <0.01 |
| ·fosfamidon | <0.02 | <0.02 | <0.02 |
| ·parathion-methyl | <0.01 | <0.01 | <0.01 |
| ·malathion | <0.01 | <0.01 | <0.01 |
| ·parathion-ethyl | <0.01 | <0.01 | <0.01 |
| ·trichloronaat | <0.01 | <0.01 | <0.01 |
| ·chloorfenvinfos | <0.01 | <0.01 | <0.01 |
| ·methidathion | <0.01 | <0.01 | <0.01 |
| ·bromofos-ethyl | <0.01 | <0.01 | <0.01 |
| ·vamidothion | <0.01 | <0.01 | <0.01 |
| ·tetrachloorvinfos | <0.01 | <0.01 | <0.01 |
| ·azinfos-methyl | <0.01 | <0.01 | <0.01 |
| ·pyrazofos | <0.01 | <0.01 | <0.01 |
| ·temefos | <0.05 | <0.05 | <0.05 |

# 3 BIJLAGE C RESULTATEN GROEPSPARAMETERS XAD-ISOLATEN

In deze bijlage zijn de resultaten getabelleerd van de groepsparameter bepalingen in de XAD-isolaten. De parameters voor de pH=7 isolaten zijn weergegeven als "X7.." en die voor de pH=2 isolaten als "X2..". De OX-, ON- en OS-gehalten zijn vermeld in µg Cl/l, µg N/l respektievelijk µg S/l. Het HPLC/UV piekoppervlak is uitgedrukt in au·min, het zwaartepunt in min.
Als eerste parameter is de datum vam monsterneming opgenomen.

## 3.1 Leiduin

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880516 | 880516 | 880516 |
| X7OX | 4.0 | 1.2 | 1.0 |
| X7ON | 13 | 6.5 | 5.5 |
| X2ON | 19 | 21 | 22 |
| X7OS | 8.5 | 3.6 | 2.8 |
| X2OS | 12 | 13 | 11 |
| HPLC/UV: | | | |
| ·X7 oppervlak (au·min) | 0.23 | 0.13 | 0.16 |
| ·X7 zwaartepunt (min) | 22.68 | 24.41 | 23.78 |
| ·X2 oppervlak (au·min) | 0.87 | 1.40 | 1.38 |
| ·X2 zwaartepunt (min) | 26.28 | 26.43 | 24.45 |

## 3.2 Scheveningen

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880606 | 881012 | 881012 |
| X7OX | 6.7 | 1.1 | 0.8 |
| X7ON | 13 | 7.0 | 5.5 |
| X2ON | 30 | 27 | 27 |
| X7OS | 4.8 | 3.0 | 1.8 |
| X2OS | 14 | 12 | 11 |
| HPLC/UV: | | | |
| ·X7 oppervlak (au·min) | 0.24 | 0.16 | 0.12 |
| ·X7 zwaartepunt (min) | 23.28 | 22.37 | 21.40 |
| ·X2 oppervlak (au·min) | 1.44 | 1.29 | 1.34 |
| ·X2 zwaartepunt (min) | 20.97 | 22.48 | 22.79 |

## 3.3 Ouddorp

| parameter | ruw | half | rein |
|---|---|---|---|
| dd. | 881019 | 881019 | 880704 |
| X7OX | 3.6 | 1.1 | 1.1 |
| X7ON | 23 | 8.5 | 5.5 |
| X2ON | 30 | 38 | 25 |
| X7OS | 13 | 6.5 | 1.4 |
| X2OS | 16 | 20 | 9.1 |
| HPLC/UV: | | | |
| ·X7 oppervlak (au·min) | 0.56 | 0.31 | 0.14 |
| ·X7 zwaartepunt (min) | 22.91 | 22.95 | 24.48 |
| ·X2 oppervlak (au·min) | 1.65 | 2.45 | 2.06 |
| ·X2 zwaartepunt (min) | 24.98 | 23.85 | 23.73 |

## 3.4 Enschede

| parameter | ruw | half | rein |
|---|---|---|---|
| dd. | 880627 | 880627 | 880627 |
| X7OX | 2.9 | 1.7 | 7.3 |
| X7ON | 18 | 10 | 11 |
| X2ON | 60 | 44 | 39 |
| X7OS | 12 | 7.1 | 4.9 |
| X2OS | 37 | 28 | 21 |
| HPLC/UV: | | | |
| ·X7 oppervlak (au·min) | 1.00 | 0.54 | 0.43 |
| ·X7 zwaartepunt (min) | 22.57 | 22.87 | 22.71 |
| ·X2 oppervlak (au·min) | 5.48 | 3.68 | 3.22 |
| ·X2 zwaartepunt (min) | 23.02 | 21.68 | 22.61 |

## 3.5 Weesperkarspel

| parameter | ruw | half | rein |
|---|---|---|---|
| dd. | 880620 | 880620 | 880620 |
| X7OX | 0.8 | 1.0 | 0.7 |
| X7ON | 9.5 | 10 | 7.5 |
| X2ON | 38 | 34 | 27 |
| X7OS | 7.0 | 4.8 | 2.4 |
| X2OS | 27 | 20 | 13 |
| HPLC/UV: | | | |
| ·X7 oppervlak (au·min) | 0.66 | 0.39 | 0.18 |
| ·X7 zwaartepunt (min) | 23.54 | 22.65 | 21.75 |
| ·X2 oppervlak (au·min) | 4.00 | 3.69 | 1.71 |
| ·X2 zwaartepunt (min) | 23.51 | 22.49 | 21.02 |

## 3.6 Kralingen

| parameter | ruw | half | rein |
|---|---|---|---|
| dd. | 880531 | 880531 | 880531 |
| X7OX | 2.1 | 0.9 | 4.2 |
| X7ON | 10 | 5.5 | 4.5 |
| X2ON | 25 | 14 | 14 |
| X7OS | 4.0 | 2.1 | 1.3 |
| X2OS | 15 | 6.3 | 5.1 |
| HPLC/UV: | | | |
| ·X7 oppervlak (au·min) | 0.19 | 0.07 | 0.02 |
| ·X7 zwaartepunt (min) | 22.80 | 20.22 | 17.29 |
| ·X2 oppervlak (au·min) | 1.65 | 0.47 | 0.29 |
| ·X2 zwaartepunt (min) | 22.46 | 18.94 | 19.18 |

## 3.7 Andijk

| parameter | ruw | half | rein |
|---|---|---|---|
| dd. | 880929 | 880929 | 880929 |
| X7OX | 3.8 | 28 | 4.2 |
| X7ON | 27 | 20 | 5.0 |
| X2ON | 57 | 34 | 15 |
| X7OS | 12 | 7.8 | 1.0 |
| X2OS | 29 | 15 | 5.0 |
| HPLC/UV: | | | |
| ·X7 oppervlak (au·min) | 0.74 | 0.45 | 0.04 |
| ·X7 zwaartepunt (min) | 22.18 | 22.74 | 24.10 |
| ·X2 oppervlak (au·min) | 3.54 | 1.28 | 0.37 |
| ·X2 zwaartepunt (min) | 24.37 | 25.19 | 21.13 |

## 3.8 Groningen

| parameter | ruw | half | rein |
|---|---|---|---|
| dd. | 880921 | 880921 | 880921 |
| X7OX | 1.3 | 1.1 | 1.0 |
| X7ON | 14 | 11 | 11 |
| X2ON | 55 | 46 | 42 |
| X7OS | 4.9 | 4.0 | 3.5 |
| X2OS | 25 | 18 | 17 |
| HPLC/UV: | | | |
| ·X7 oppervlak (au·min) | 0.70 | 0.44 | 0.41 |
| ·X7 zwaartepunt (min) | 21.42 | 21.86 | 21.52 |
| ·X2 oppervlak (au·min) | 5.27 | 3.60 | 2.95 |
| ·X2 zwaartepunt (min) | 22.98 | 23.58 | 23.07 |

# 4 BIJLAGE D RESULTATEN GC/MS ONDERZOEK

In deze bijlage worden per bedrijf de resultaten van het GC/MS onderzoek van de XAD-isolaten weergegeven. Getabelleerd zijn: het spectrumnummer, de naam of groepsaanduiding van de verbinding dan wel de spectruminformatie en de piekintensiteiten in het "total-ion current" chromatogram van de betreffende component in ruwwater, halfprodukt en reinwater. De piekintensiteiten zijn genormeerd op die van de interne standaard.

| pH 7 | LEIDUIN | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1055 | 1056 | 1057 |
| 34 | 75,88,116,131 | 36 | 84 | 0 |
| 51 | 45,73,101 | 76 | 153 | 159 |
| 80 | 55,98,m.cyclopentanon | 14 | 22 | 0 |
| 90 | 45,87 | 49 | 0 | 0 |
| 105 | 91,106,ethylbenzeen | 33 | 39 | 0 |
| 139 | 107,108,109 | 11 | 0 | 0 |
| 150 | 108+ | 4 | 0 | 0 |
| 154 | 99,129,133,209 | 8 | 0 | 0 |
| 163 | 2-chl.pyridine | 27 | 0 | 0 |
| 166 | 43,60,88 | 0 | 18 | 0 |
| 183 | 45,59,89 | 138 | 109 | 430 |
| 195 | 59+ | 22 | 0 | 61 |
| 202 | benzaldehyde | 29 | 47 | 23 |
| 230 | trimethylthiofosfaat | 37 | 19 | 0 |
| 236 | 43,74,102,m-butyraat | 0 | 22 | 18 |
| 244 | 43,69,108 | 0 | 29 | 0 |
| 259 | NNdiethylacetamide | 0 | 0 | 22 |
| 272 | 69,138 | 0 | 27 | 0 |
| 288 | 72,119 | 37 | 0 | 0 |
| 297 | 109,138 methyl propionyl furan | 0 | 30 | 0 |
| 336 | dichloorbenzeen | 30 | 0 | 0 |
| 338 | aminobenztrifluoride | 25 | 0 | 0 |
| 340 | 45,96,128,138 | 18 | 27 | 0 |
| 344 | 45,82,140,trim.cyclohexanon | 0 | 0 | 28 |
| 360 | indeen | 17 | 0 | 0 |
| 362 | N.N-dim.benzylamine | 32 | 0 | 0 |
| 373 | acetofenon | 27 | 42 | 23 |
| 390 | 78,104,132,133,2H1,3dihydroIndol2one | 15 | 0 | 0 |
| 393 | 107,108,4m-fenol | 0 | 68 | 0 |
| 394 | Joodcyclohexaan | 49 | 0 | 0 |
| 405 | 45,75,77,93,105,123 | 94 | 0 | 18 |
| 432 | NNdimethylaniline | 0 | 0 | 32 |
| 435 | 108,152, C10H16O | 206 | 88 | 112 |
| 472 | triethylfosfaat | 91 | 109 | 47 |
| 478 | 77,121,dimethoxy-ethylbenzeen | 0 | 0 | 28 |
| 507 | t-butylcyclohexenon C10H16-O | 60 | 88 | 59 |
| 525 | 100,72,Ureaverb.? | 22 | 0 | 0 |
| 537 | 42,56,122,139,154,C10H18-O | 20 | 27 | 31 |
| 551 | nitrotolueen(91,120,137) | 28 | 0 | 0 |
| 554 | 195,197 | 13 | 0 | 0 |
| 561 | ethylbenzaldehyde | 128 | 31 | 50 |
| 571 | 138+(nitroaniline?) | 43 | 0 | 0 |
| 589 | 131,132,103,77 m.benzofuran | 47 | 46 | 81 |
| 608 | trichloorbenzeen | 23 | 0 | 0 |
| 611 | 2H2meth.benzotriazol | 27 | 0 | 0 |
| 646 | 98,139 | 42 | 0 | 0 |
| 650 | 75,149,114,177,nitroftaalz.anh. | 58 | 52 | 73 |
| 672 | 139,67,C7H9NO2"pyrrol" | 21 | 68 | 52 |
| 679 | 135+ | 13 | 0 | 0 |
| 689 | 59,103,133 | 70 | 27 | 0 |
| 693 | tri-n-butylamine | 23 | 0 | 0 |
| 700 | 1Chl.2-nitrobenzeen | 47 | 0 | 0 |
| 712 | 146,161,dichlooraniline | 21 | 27 | 0 |
| 759 | 45,75,133 | 17 | 17 | 0 |
| 762 | 133,105,148 | 0 | 26 | 28 |
| 771 | 75,119,168 | 0 | 0 | 15 |
| 774 | 106,135,ethylacetofenon | 87 | 17 | 0 |
| 780 | 43,87,161 | 0 | 0 | 55 |
| 799 | 146,147,131 aminomethyldureen | 23 | 0 | 0 |
| 803 | 110,200 | 19 | 0 | 0 |
| 825 | dimethylftalaat | 37 | 0 | 0 |
| 836 | 149,105,77,C4-O-benzeen | 0 | 50 | 47 |
| 845 | m-naftaleen | 0 | 41 | 0 |
| 853 | 154,155,156,bifenyl? | 25 | 0 | 0 |
| 859 | 132,166 | 11 | 0 | 0 |
| 867 | 133,149,164,ethyltoluaat | 0 | 0 | 24 |
| 871 | 131,103,162 methylcinnamaat | 0 | 0 | 34 |
| 874 | dichlooraniline | 21 | 19 | 0 |
| 882 | dichlooraniline | 36 | 16 | 0 |
| 888 | 171,173,dichlobenyl | 17 | 0 | 0 |
| 897 | 145,160,175,tetram.indoline? | 64 | 0 | 48 |
| 906 | 86,186 | 14 | 0 | 0 |
| 912 | methylnaftaleen | 0 | 16 | 0 |
| 927 | 106,163+Si | 18 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 947 | 167,196/198 | 22 | 0 | 0 |
| 952 | 127 | 0 | 27 | 0 |
| 959 | 57,87,115,160 | 21 | 44 | 0 |
| 963 | 132,160,175,trimethyloxindool | 0 | 0 | 39 |
| 974 | dimethylchinoline | 0 | 23 | 0 |
| 982 | 56,111,155,alkylcycloalkaan | 37 | 0 | 0 |
| 989 | methylindool | 0 | 33 | 0 |
| 1003 | 65,92,108,138,nitroaniline | 162 | 0 | 0 |
| 1035 | 76,117,158,ethylquinazoline | 36 | 30 | 0 |
| 1048 | 132,160,175,trim.oxindool | 43 | 0 | 0 |
| 1049 | 167,168,methylbifenyl | 0 | 0 | 17 |
| 1055 | 150,165,Nmeth.Neth.3methoxyaniline | 0 | 63 | 27 |
| 1078 | 112,(43,111,149) | 0 | 41 | 0 |
| 1085 | 43,109,151,picolylacetaat | 118 | 33 | 0 |
| 1086 | 100,123,55,210 | 0 | 0 | 12 |
| 1105 | 168,198 | 22 | 0 | 0 |
| 1113 | 157,115 dimethyl chinoline | 16 | 0 | 0 |
| 1134 | 89,91,119,172 | 34 | 0 | 0 |
| 1152 | 164,191 | 0 | 22 | 0 |
| 1156 | 164,108,136,179,4-isopr.7-m.-azepine2,5dion | 0 | 27 | 19 |
| 1172 | 82,110,181 | 44 | 26 | 29 |
| 1181 | 77,105,176 | 36 | 0 | 0 |
| 1184 | 77,177,205,220(2 Cl?) | 34 | 0 | 0 |
| 1211 | 77,106,152, 4m-2nitroaniline | 63 | 0 | 0 |
| 1216 | 59,103 | 74 | 0 | 0 |
| 1219 | 59,165,206 | 32 | 0 | 0 |
| 1247 | 77,170 | 26 | 0 | 0 |
| 1255 | tributylfosfaat | 0 | 0 | 29 |
| 1257 | 77,170 | 44 | 0 | 0 |
| 1260 | 77,111,137,180,tetrahydrotrim.benzofuranon | 47 | 64 | 0 |
| 1271 | 178,193,150,1156+CH3 | 0 | 50 | 40 |
| 1291 | 127,170 terp. | 103 | 25 | 0 |
| 1325 | 55,127,170, terp | 67 | 19 | 0 |
| 1339 | 55,127,170, terp | 53 | 21 | 0 |
| 1354 | 91,119,190,DEET | 29 | 27 | 0 |
| 1377 | 118,146,189,N.fen.(fen.Eth)4piperidinamine | 33 | 43 | 22 |
| 1389 | 181,148,108,meth.thio.benzthiazole | 23 | 0 | 0 |
| 1412 | 187,245,diacetonglucose | 369 | 84 | 90 |
| 1425 | 71,43,128,155,173 | 0 | 34 | 47 |
| 1431 | C16H30-O4,2,2,4trim1,3C5dioldiisobutyraat | 0 | 19 | 68 |
| 1447 | 173,131,129,102,44,75 | 34 | 0 | 0 |
| 1459 | 181,206,221,acetylbenzchinoline? | 0 | 31 | 0 |
| 1472 | 164 | 23 | 0 | 0 |
| 1487 | 99,127,153,211,tributylfosfaat | 33 | 32 | 34 |
| 1509 | 162,205,1,2,4triazolo1,5,pyrazine,trim | 96 | 0 | 0 |
| 1510 | 84,127,42,110,153,167 | 96 | 0 | 0 |
| 1512 | triC4fosfaat | 0 | 44 | 0 |
| 1527 | 84,127,110,153,167 | 120 | 0 | 0 |
| 1536 | 120,146,192,trimetoxybenzeenacetonitril | 70 | 0 | 0 |
| 1544 | 84,127,153,176 | 0 | 63 | 0 |
| 1605 | 136,193 | 0 | 0 | 30 |
| 1624 | 249,251,63,trichl.eth.fosfaat | 162 | 0 | 0 |
| 1632 | 200,215,atrazine | 211 | 120 | 99 |
| 1672 | 77,107,141,170,N-C4benzeensulfonamide | 49 | 29 | 0 |
| 1685 | 134,162,190,214 | 0 | 29 | 30 |
| 1695 | 73,129,162,185,228 | 0 | 54 | 0 |
| 1703 | 258 | 17 | 0 | 0 |
| 1722 | I.S. | 100 | 100 | 100 |
| 1734 | 179,232 | 20 | 0 | 0 |
| 1746 | 155,84,112 | 36 | 0 | 0 |
| 1758 | 161,174,233,3,4dichlfenylcarbamicacid(eth.est) | 40 | 26 | 30 |
| 1772 | 167,210,methoxyfenazine | 0 | 26 | 0 |
| 1828 | 168,208,243/245 | 77 | 37 | 0 |
| 1837 | diC4ftalaat | 163 | 36 | 122 |
| 1849 | di-t.btylfenol | 25 | 0 | 0 |
| 1852 | 43,68...123 | 23 | 295 | 0 |
| 1892 | 77,125,218,difenylsulfon | 0 | 28 | 0 |
| 1896 | 86,120,148,268,ppbis(dim.amino)benzofenon | 46 | 0 | 0 |
| 1905 | 129,156,210,263,81 | 36 | 0 | 0 |
| 1914 | 129,81,156 | 33 | 0 | 0 |
| 1920 | 205/207,bromacil | 58 | 4 | 0 |
| 1930 | 129,156,230,81 | 40 | 0 | 0 |
| 1977 | diC4ftalaat | 33 | 167 | 60 |
| 2007 | palmitinezuur | 0 | 139 | 0 |
| 2020 | 162,238,metolachloor | 43 | 0 | 0 |
| 2037 | 57,208,85,181,110,128,233,triadimefon | 37 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 2064 | stearinezuur | 0 | 59 | 0 |
| 2157 | 57,112,168,208,246 | 35 | 47 | 0 |
| 2178 | 112,168,C14H18N3O2Cl | 35 | 0 | 0 |
| 2180 | 58,168,208,259,(286) | 45 | 0 | 0 |
| 2243 | 71,95,123 | 0 | 96 | 0 |
| 2486 | 133,204,274,302 | 61 | 45 | 0 |
| 2520 | 81,132,241,267 | 54 | 40 | 79 |
| 2565 | 45,179,223,253,283,(300),ether? | 44 | 24 | 0 |
| 2656 | 291 | 66 | 0 | 0 |
| 2694 | 277,278,77,201,trifen.fosfine.oxide | 363 | 56 | 102 |
| 2704 | 191,277,312,368,C25H36-O2 zie 2709 | 0 | 0 | 89 |
| 2709 | bis(3t.C4-5eth2hydroxyfenyl)methaan | 0 | 0 | 86 |
| 2711 | 45,163,193,278,ether? | 49 | 28 | 0 |
| 2758 | diC8ftalaat | 60 | 53 | 133 |
| 2816 | 183,185,266,294,trifenylfosfinesulfide | 33 | 0 | 0 |
| | | 6275 | 3866 | 2928 |

| pH 2 | LEIDUIN | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1055zs | 1056zs | 1057zs |
| 20 | 45,61,43,59,76,84,104 f=104 | 64 | 60 | 69 |
| 30 | 43,41,69 | 0 | 0 | 21 |
| 31 | 43,87,116 f=116 | 47 | 60 | 71 |
| 42 | 43,71,88 | 0 | 0 | 17 |
| 51 | 45,62 urethaan ? | 68 | 74 | 80 |
| 56 | 95,96 furaancarboxyaldehyde ? | 26 | 33 | 25 |
| 56 | 59,80,81 f=81 | 19 | 24 | 30 |
| 74 | 69,99,41,39 buteenzuur E.-ester *) | 14 | 17 | 24 |
| 88 | 55,43,98,109 methylfuranon | 11 | 16 | 15 |
| 102 | 55,83,128 f=128 C4 H7 COOH-E.-ester *) | 10 | 12 | 13 |
| 115 | 91,106 C2-benzeen | 9 | 9 | 11 |
| 134 | 57,67,96,40 f=96 C6 H8 O | 15 | 20 | 0 |
| 148 | 40,39,68,59 f=98 C6 H10 O | 0 | 0 | 15 |
| 156 | 55,97,126 CHO | 0 | 0 | 10 |
| 162 | 47,103,73,75 (f=128) C4 H7 COOH-E.-ester *) | 36 | 46 | 27 |
| 170 | 83,55,128 methylbuteenzuur E.-ester *) | 21 | 28 | 24 |
| 173 | 47,61,103,89 diethoxyethanol | 12 | 42 | 13 |
| 177 | 43,60,88 3-oxobutaanzuur E.-ester *) | 34 | 56 | 58 |
| 193 | 122,107,121 C2-fenol ? | 10 | 15 | 14 |
| 194 | 43,71 | 0 | 0 | 28 |
| 195 | 59,58,89,45 methoxy-tert-butanol | 40 | 28 | 21 |
| 197 | 83,67,55,43,100,110 CHO | 34 | 0 | 0 |
| 203 | 55,41,67,83 cyclohexaanthiol? | 0 | 29 | 31 |
| 207 | 110,109,53,methylfurancarboxaldehyde. | 0 | 15 | 15 |
| 233 | 45,74 | 37 | 50 | 42 |
| 247 | 43,102,74 2-Me-3-oxobutaanzuur E.-ester (mw.144) * | 19 | 28 | 30 |
| 251 | 69,43 | 0 | 15 | 17 |
| 265 | 45,59,111,139 f=139 CHO | 93 | 32 | 52 |
| 279 | 42,43,45,129 f=144 | 16 | 21 | 20 |
| 283 | 110,88,55,68,99,41 | 0 | 22 | 0 |
| 296 | 69,55,82,126 f=142 C9H18O-verb.? | 16 | 24 | 27 |
| 304 | 54,126,39 f=142 | 0 | 16 | 13 |
| 326 | 109,124 CHO (mog.triMecyclopentanon) | 0 | 18 | 18 |
| 330 | 57,67,110,41 f=144 | 0 | 23 | 18 |
| 334 | 91,105,120 C3-benzeen | 17 | 26 | 18 |
| 342 | 43,57,97,127 f=144 | 17 | 0 | 22 |
| 347 | 82,56,69,140 triMecyclohexanon | 0 | 0 | 18 |
| 356 | 43,99,129 4-oxopentaanzuur E.-ester (mw.144) *) | 30 | 52 | 56 |
| 379 | 133,115,43,88 propaandizuur di-E.-ester *) | 119 | 198 | 212 |
| 387 | 82,138 triMe.cyclohexenon | 0 | 18 | 14 |
| 402 | 83,55,210 joodcyclohexaan | 106 | 50 | 108 |
| 407 | 71,99,43,129 f=144 C4 H7 O COOH-E.-ester *) | 14 | 18 | 18 |
| 427 | 47,75,103 diethoxyethaanzuur E.-ester ? *) | 37 | 56 | 34 |
| 429 | 39,68,53,98,140 CHO | 0 | 37 | 25 |
| 438 | 68,39,138 terpeen ? | 36 | 41 | 27 |
| 440 | 74,129 f=174 | 0 | 0 | 38 |
| 441 | 44,108,152 terpenoide | 47 | 23 | 18 |
| 444 | 105,77,57 | 0 | 0 | 18 |
| 461 | 43,61,117,89,145 triEmethoxysilaan | 55 | 90 | 59 |
| 476 | 82,54,39 triMecy.hexenon ?? | 44 | 48 | 28 |
| 488 | 82,138 trimethylcyclohexenon | 10 | 17 | 15 |
| 516 | 68,96,152 triMecyclohexeendion(mw152) | 24 | 34 | 37 |
| 542 | 47,75,103 alkoxysilaan ? | 23 | 47 | 28 |
| 558 | 82,54,112 f=152 terpenoide | 25 | 27 | 19 |
| 567 | 109,99,53,154 f=154 terpenoide | 22 | 20 | 20 |
| 570 | 134,133,105,119 ethylbenzaldehyde | 0 | 28 | 0 |
| 575 | 103,71,145,168 diethoxy-alkaan | 36 | 76 | 55 |
| 599 | 133,134,105,91 ethylbenzaldehyde | 9 | 15 | 0 |
| 615 | 127,99,55 buteendicarbz.di-E.-ester *) | 26 | 47 | 37 |
| 655 | 115,143,87 pentaandicarb.zuur di-E.-ester *) | 16 | 25 | 17 |
| 658 | 88,101 C8 carbonzuur E.-ester *) | 0 | 0 | 15 |
| 661 | 43,115 CHO | 0 | 32 | 16 |
| 679 | 120,41,135,96 | 20 | 18 | 23 |
| 686 | 139,67,53,96 ethyl,methyl-pyrrooldion C7H9O2N | 30 | 64 | 32 |
| 703 | 113,69,141,168 C8 H8 O3 | 8 | 17 | 11 |
| 713 | 141,106 chloormethylaniline | 49 | 19 | 11 |
| 728 | 91,164,65,119 benzeenazijnzuur E.-ester *) | 13 | 29 | 11 |
| 729 | 66,109,137,182 f=182 C9 H10 O3 | 0 | 13 | 10 |
| 766 | 71,117,43,89 hydroxybutaandizuur di-E.-ester ? *) | 22 | 34 | 21 |
| 769 | 43,133,99,105,148 | 18 | 23 | 16 |
| 796 | 143,115,114,87 di-E.-ester pentaandizuur *) | 13 | 39 | 14 |
| 804 | 100,43,109,131 | 0 | 22 | 0 |
| 810 | 110,119,43 | 0 | 0 | 20 |
| 817 | 104,76,50,148 ftaalzuuranhydride | 20 | 0 | 12 |

| | | | | |
|---|---|---|---|---|
| 819 | 151,180 C12 H20 O ? | 0 | 19 | 17 |
| 828 | 119,55 | 0 | 18 | 0 |
| 835 | 43,135 | 0 | 23 | 0 |
| 844 | (99),133,164 ethyltoluaat *) | 0 | 0 | 11 |
| 853 | 43 (klein:55,69,83) | 0 | 25 | 14 |
| 863 | 88,101 E.-ester C9-carb.zuur *) | 14 | 0 | 0 |
| 865 | 110,43,125,96,82 | 17 | 0 | 0 |
| 866 | 71,157,129 | 0 | 18 | 0 |
| 880 | 121,136,122,137 C?-fenol ? | 20 | 25 | 22 |
| 884 | 86,140,68,113 | 17 | 21 | 23 |
| 898 | 85,157,113,148,180 | 9 | 0 | 0 |
| 901 | (67),122,137 acetyl-dimethyl pyrrool C8H11 ON | 20 | 40 | 26 |
| 918 | 105,43,94,129,178 | 0 | 0 | 14 |
| 920 | 41,125,153,182 butylpropyl-amino-isoxazolidinon | 14 | 0 | 0 |
| 932 | 75,105,133 | 0 | 24 | 0 |
| 946 | 43,60,74,88 CHO (zuur) | 0 | 32 | 0 |
| 950 | 43,112,126,(164) | 18 | 0 | 0 |
| 957 | 101,129,55,73 dicarb.zuur di-E.-ester *) | 20 | 33 | 19 |
| 962 | 149,121,164 tert.butylcresol | 28 | 0 | 0 |
| 973 | 114,115,68 | 0 | 18 | 0 |
| 974 | 105,160,187 | 17 | 0 | 14 |
| 988 | 85,133,74,105 | 18 | 45 | 23 |
| 993 | 111 (klein:125,141) | 20 | 34 | 0 |
| 1002 | 43,128,55,174 f=174 | 18 | 32 | 25 |
| 1009 | 45,74,101 | 20 | 29 | 21 |
| 1012 | 45,88,90,99,118,162 | 31 | 30 | 22 |
| 1021 | 131,103,176 fenylpropeenzuur E.-ester ? *) | 0 | 31 | 0 |
| 1023 | 131,110,55,154 | 0 | 0 | 14 |
| 1043 | 74,60,88 | 0 | 48 | 0 |
| 1044 | 126,153,53 f=153 | 16 | 0 | 24 |
| 1053 | 111,168,112,98,167 | 21 | 31 | 22 |
| 1054 | 103,148,176 | 0 | 33 | 0 |
| 1059 | 119,165 aminobenzoezuur E.-ester *) | 16 | 0 | 0 |
| 1079 | 84,116 f=193 CHO | 46 | 47 | 46 |
| 1115 | 108,153,125,97 | 0 | 16 | 12 |
| 1128 | 120 | 18 | 0 | 0 |
| 1134 | 123,69 | 18 | 20 | 0 |
| 1144 | 152,76 | 23 | 13 | 0 |
| 1193 | 97,43,69,110,125 | 0 | 23 | 18 |
| 1194 | 92,121,164,212 | 26 | 0 | 0 |
| 1212 | 114,139,142,185,188 f=188 | 25 | 26 | 23 |
| 1218 | 173,127,128,99 ethaantricarboxylaat tri-E.-ester * | 19 | 29 | 21 |
| 1240 | 101,129 f=185 dicarb.z. di-E.-ester *) | 24 | 0 | 27 |
| 1244 | 167,166,139 carbazool ? (base) | 32 | 50 | 32 |
| 1258 | 151,166,123 tert.butyl-1,2-benzeendiol | 13 | 23 | 25 |
| 1259 | 57,99 | 0 | 25 | 26 |
| 1267 | 191 (klein:57,177,206) ditert.C4-fenol | 27 | 0 | 0 |
| 1269 | 111,121,180,155 | 0 | 37 | 27 |
| 1276 | 123 (klein:43,169,240) f=240 | 37 | 29 | 0 |
| 1303 | 107,180, hydroxyfenylazijnzuur E.-ester *) | 0 | 28 | 0 |
| 1302 | 127,55,69,170 C10H18O2-terpenoide | 53 | 0 | 0 |
| 1307 | 70,55,56,107 f=180 | 65 | 46 | 0 |
| 1332 | 125,53,151,180 | 0 | 0 | 33 |
| 1336 | 127,128,41,55,(169,170) C10H18O2-terpenoide | 46 | 0 | 0 |
| 1343 | 222,224,207,209,164 dimetoxyClnaftaleen ?? | 32 | 0 | 35 |
| 1348 | 151,110,43 | 0 | 31 | 28 |
| 1355 | 127,69,55,41,170 C10H18O2-terpenoide | 45 | 0 | 0 |
| 1367 | 135 (klein:120,77,91,192) | 0 | 0 | 36 |
| 1372 | 70,55,56,71,98,85, CH-onverz | 156 | 68 | 38 |
| 1382 | 149,223 di C4-ftalaat | 0 | 0 | 32 |
| 1422 | 169,142,242,171 chl.toloxyE.propionaat(=mecoprop?) | 0 | 15 | 0 |
| 1428 | 88,101 ester C12-carb.zuur *) | 0 | 22 | 0 |
| 1443 | 59,43,71 suikerachtige | 205 | 109 | 217 |
| 1454 | 70,55 | 102 | 0 | 0 |
| 1456 | 110,81,95 CHO | 26 | 28 | 0 |
| 1492 | 110,81,95,55 | 0 | 30 | 0 |
| 1486 | 59,71,205,207,209,265,267 | 51 | 0 | 0 |
| 1510 | 165,137,67,166 | 76 | 118 | 76 |
| 1547 | 146,188 dihydrotrimethylnaftalenon | 56 | 30 | 35 |
| 1557 | 130,199 | 34 | 60 | 0 |
| 1577 | 43,287,171 | 34 | 0 | 41 |
| 1587 | 129,157,187,245,303 poly-ol n x 58 | 95 | 64 | 111 |
| 1592 | 152,43,139,111,123,153 | 0 | 109 | 0 |
| 1609 | 149,177 ftaalzuur di-E.-ester ?*) | 0 | 27 | 17 |
| 1628 | 163,179 | 0 | 32 | 0 |
| 1695 | 173,157,145,59,231,289 f=231 suikerachtige | 262 | 71 | 44 |

| | | | | |
|---|---|---|---|---|
| 1742 | I.S. | 100 | 100 | 100 |
| 1766 | 88,101(mw256) ethylester C14-zuur *) | 36 | 95 | 35 |
| 1777 | 194,109,241 | 34 | 0 | 0 |
| 1778 | 181,226 | 0 | 22 | 0 |
| 1794 | 243,241,245,260,288,286 tetrachl-E.-benzoaat *) | 70 | 28 | 38 |
| 1828 | 133,207,234,280 | 42 | 25 | 0 |
| 1854 | 84,155,112 | 116 | 39 | 0 |
| 1866 | 184,77,141,116 N-R,N-methyl benzeensulfonamide | 226 | 126 | 0 |
| 1880 | 88,101 (mw270) ethylester C15-zuur *) | 0 | 23 | 0 |
| 1898 | 70,41,194,96 | 0 | 43 | 33 |
| 1907 | 147,91,221,248,294 | 42 | 0 | 0 |
| 1911 | 222,177,150 arom. zuur ? | 0 | 37 | 0 |
| 1919 | 173 (klein:117,91) | 26 | 29 | 0 |
| 1920 | 88,101 alif.carbz (C15?) E.-ester *) | 0 | 46 | 0 |
| 1925 | 82,81,57,68,95 f=278 | 0 | 37 | 0 |
| 1952 | 242,240,244,214,142,286 tetraClftaalzuuranhydride | 50 | 25 | 30 |
| 1986 | 133,220,149,91,294 | 42 | 29 | 0 |
| 1959 | 79,93,55 | 0 | 46 | 0 |
| 2014 | 45,220,192,148 | 53 | 0 | 0 |
| 2038 | 55,41,263,312 | 47 | 0 | 0 |
| 2040 | 55,41,69,88,282 palmetoliezuur E.-ester *) | 0 | 255 | 0 |
| 2044 | 221,147,91,287,308 | 53 | 0 | 0 |
| 2052 | 91,147,234,308 | 56 | 0 | 0 |
| 2072 | 88,101,284 palmitinezuur E.-ester *) | 74 | 297 | 73 |
| 2090 | 99 | 0 | 28 | 0 |
| 2146 | 247,161,91,322 | 41 | 33 | 0 |
| 2223 | 249,193,207,221 | 26 | 0 | 0 |
| 2264 | 99 (klein:236,252) | 0 | 44 | 0 |
| 2284 | 79,67,91,55 f=261 onverz. alkaan of zuur | 0 | 96 | 0 |
| 2286 | 287,285,289,358 tetraCl-o-ftaalzuur di-E.-ester *) | 30 | 18 | 0 |
| 2303 | 67,81,55,95,41 f=308 C18-dubbel onverz. zuur *) | 0 | 40 | 0 |
| 2309 | 79,67,95,55,41,108 f=306 linoleenzuur E.-ester *) | 0 | 99 | 0 |
| 2315 | 55,41,69,88,265 f=306 CH of CHO | 0 | 58 | 0 |
| 2321 | 193,266 | 48 | 42 | 79 |
| 2336 | 243,128,169,308 | 101 | 0 | 0 |
| 2353 | 88,101 (mw.312) ethylester C18-zuur *) | 0 | 48 | 77 |
| 2414 | 235,237,336 | 21 | 0 | 0 |
| 2501 | 268,270,342,344 | 53 | 0 | 0 |
| 2516 | 79,67,55,93,105 C20-onverz. zuur *) | 0 | 48 | 0 |
| 2608 | 131,103,59 | 39 | 0 | 0 |
| | | 4885 | 5726 | 3693 |

| pH 7 | S C H E V E N I N G E N | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1250 | 1251 | 1252 |
| 80 | 55,98,m.cyclopentanon | 87 | 0 | 0 |
| 105 | 91,106,ethylbenzeen | 48 | 0 | 0 |
| 150 | 108+ | 63 | 0 | 0 |
| 183 | 45,59,89 | 0 | 187 | 0 |
| 195 | 59+ | 66 | 0 | 0 |
| 198 | 110,109,69,53 | 84 | 0 | 0 |
| 293 | 91,126,Chloortolueen | 84 | 0 | 0 |
| 318 | 109,110,124,trim.cyclopentenon | 220 | 0 | 0 |
| 340 | 45,96,128,138 | 84 | 0 | 0 |
| 344 | 45,82,140,trim.cyclohexanon | 0 | 157 | 0 |
| 362 | N.N-dim.benzylamine | 75 | 0 | 0 |
| 375 | 124,54,105,77 | 68 | 0 | 0 |
| 395 | 83,85,(107) | 77 | 0 | 0 |
| 439 | 91,105,77,117,132 | 90 | 192 | 0 |
| 472 | triethylfosfaat | 43 | 0 | 0 |
| 480 | 82,91,138,121 | 34 | 0 | 0 |
| 507 | t-butylcyclohexenon C10H16-O | 199 | 225 | 47 |
| 537 | 42,56,122,139,154,C10H18-O | 112 | 159 | 37 |
| 561 | ethylbenzaldehyde | 40 | 109 | 45 |
| 589 | 131,132,103,77 m.benzofuran | 67 | 117 | 51 |
| 672 | 139,67,C7H9NO2"pyrrol" | 88 | 84 | 0 |
| 712 | 146,161,dichlooraniline | 52 | 0 | 0 |
| 762 | 133,105,148 | 0 | 76 | 0 |
| 800 | 117,90,89 N-verb. | 0 | 79 | 0 |
| 836 | 149,105,77,C4-O-benzeen | 0 | 98 | 40 |
| 841 | 149,133,119,164 | 41 | 0 | 0 |
| 871 | 131,103,162 methylcinnamaat | 0 | 0 | 27 |
| 888 | 171,173,dichlobenyl | 27 | 0 | 0 |
| 897 | 145,160,175,tetram.indoline? | 0 | 78 | 34 |
| 947 | 167,196/198 | 29 | 0 | 0 |
| 963 | 132,160,175,trimethyloxindool | 25 | 62 | 19 |
| 1078 | 112,(43,111,149) | 0 | 50 | 0 |
| 1260 | 77,111,137,180,tetrahydrotrim.benzofuranon | 59 | 75 | 0 |
| 1271 | 178,193,150,1156+CH3 | 0 | 40 | 0 |
| 1378 | 152 | 23 | 0 | 0 |
| 1412 | 187,245,diacetonglucose | 0 | 82 | 0 |
| 1431 | C16H30-O4,2,2,4trim1,3C5dioldiisobutyraat | 0 | 71 | 0 |
| 1477 | 66,91,113,142,172 | 93 | 0 | 0 |
| 1487 | 99,127,153,211,tributylfosfaat | 155 | 0 | 0 |
| 1608 | 173,201,simazine | 87 | 0 | 9 |
| 1611 | 129,159 | 0 | 60 | 0 |
| 1632 | 200,215,atrazine | 120 | 69 | 24 |
| 1672 | 77,107,141,170,N-C4benzeensulfonamide | 17 | 0 | 0 |
| 1722 | I.S. | 100 | 100 | 100 |
| 1837 | diC4ftalaat | 179 | 78 | 43 |
| 1977 | diC4ftalaat | 0 | 0 | 40 |
| 2020 | 162,238,metolachloor | 39 | 0 | 0 |
| 2049 | 169,168,difenylamine | 68 | 0 | 0 |
| 2121 | 189,221 | 0 | 57 | 0 |
| 2486 | 133,204,274,302 | 54 | 0 | 0 |
| | | 2695 | 2204 | 415 |

| pH 2 | S C H E V E N I N G E N | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1250zs | 1251zs | 1252zs |
| 20 | 45,61,43,59,76,84,104 f=104 | 147 | 79 | 92 |
| 31 | 43,87,116 f=116 | 58 | 71 | 66 |
| 50 | 45,43,75 f=103 | 0 | 0 | 67 |
| 51 | 45,62 urethaan ? | 146 | 78 | 47 |
| 56 | 95,96 furaancarboxyaldehyde ? | 28 | 21 | 24 |
| 56 | 59,80,81 f=81 | 32 | 22 | 35 |
| 74 | 69,99,41,39 buteenzuur E.-ester *) | 34 | 21 | 29 |
| 88 | 55,43,98,109 methylfuranon | 40 | 28 | 17 |
| 97 | 96,42,68,40 C6 H8 O cyclohexenon ?? | 20 | 0 | 0 |
| 102 | 55,83,128 f=128 C4 H7 COOH-E.-ester *) | 0 | 0 | 18 |
| 115 | 91,106 C2-benzeen | 0 | 15 | 0 |
| 134 | 57,67,96,40 f=96 C6 H8 O | 37 | 32 | 24 |
| 148 | 40,39,68,59 f=98 C6 H10 O | 59 | 0 | 15 |
| 162 | 47,103,73,75 (f=128) C4 H7 COOH-E.-ester *) | 27 | 0 | 36 |
| 170 | 83,55,128 methylbuteenzuur E.-ester *) | 38 | 22 | 30 |
| 177 | 43,60,88 3-oxobutaanzuur E.-ester *) | 74 | 37 | 53 |
| 193 | 122,107,121 C2-fenol ? | 0 | 0 | 15 |
| 194 | 43,71 | 0 | 0 | 30 |
| 195 | 59,58,89,45 methoxy-tert-butanol | 0 | 26 | 0 |
| 197 | 83,67,55,43,100,110 CHO | 28 | 34 | 18 |
| 203 | 55,41,67,83 cyclohexaanthiol? | 0 | 0 | 9 |
| 207 | 110,109,53,methylfurancarboxaldehyde. | 79 | 0 | 15 |
| 223 | 85,70,57,102 f=193 | 36 | 0 | 12 |
| 233 | 45,74 | 63 | 20 | 38 |
| 247 | 43,102,74 2-Me-3-oxobutaanzuur E.-ester (mw.144) * | 55 | 41 | 31 |
| 251 | 69,43 | 0 | 34 | 23 |
| 265 | 45,59,111,139 f=139 CHO | 47 | 28 | 25 |
| 279 | 42,43,45,129 f=144 | 0 | 0 | 20 |
| 282 | 39,52,122,110 | 29 | 0 | 0 |
| 296 | 69,55,82,126 f=142 C9H18O-verb.? | 62 | 43 | 34 |
| 326 | 109,124 CHO (mog.triMecyclopentanon) | 37 | 0 | 11 |
| 330 | 57,67,110,41 f=144 | 42 | 26 | 17 |
| 334 | 91,105,120 C3-benzeen | 43 | 36 | 22 |
| 342 | 43,57,97,127 f=144 | 0 | 0 | 20 |
| 347 | 82,56,69,140 triMecyclohexanon | 0 | 41 | 19 |
| 356 | 43,99,129 4-oxopentaanzuur E.-ester (mw.144) *) | 118 | 53 | 56 |
| 379 | 133,115,43,88 propaandizuur di-E.-ester *) | 276 | 132 | 195 |
| 387 | 82,138 triMe.cyclohexenon | 0 | 17 | 19 |
| 402 | 83,55,210 joodcyclohexaan | 101 | 28 | 63 |
| 407 | 71,99,43,129 f=144 C4 H7 O COOH-E.-ester *) | 27 | 0 | 15 |
| 427 | 47,75,103 diethoxyethaanzuur E.-ester ? *) | 0 | 0 | 50 |
| 429 | 39,68,53,98,140 CHO | 138 | 46 | 27 |
| 438 | 68,39,138 terpeen ? | 91 | 0 | 0 |
| 440 | 74,129 f=174 | 0 | 0 | 41 |
| 461 | 43,61,117,89,145 triEmethoxysilaan | 26 | 0 | 75 |
| 476 | 82,54,39 triMecy.hexenon ?? | 118 | 26 | 24 |
| 488 | 82,138 trimethylcyclohexenon | 38 | 34 | 13 |
| 516 | 68,96,152 triMecyclohexeendion(mw152) | 84 | 65 | 50 |
| 536 | 101,129 alif.dicarb.zuur di-E.-ester ? *) | 37 | 0 | 0 |
| 542 | 47,75,103 alkoxysilaan ? | 0 | 0 | 33 |
| 547 | 56,83,107,122,139 f=154 terpenoide | 0 | 41 | 0 |
| 558 | 82,54,112 f=152 terpenoide | 76 | 0 | 0 |
| 567 | 109,99,53,154 f=154 terpenoide | 33 | 0 | 28 |
| 570 | 134,133,105,119 ethylbenzaldehyde | 33 | 34 | 0 |
| 575 | 103,71,145,168 diethoxy-alkaan | 36 | 0 | 62 |
| 597 | 101,129 butaandizuur di-E.ester *) | 0 | 51 | 0 |
| 599 | 133,134,105,91 ethylbenzaldehyde | 20 | 26 | 17 |
| 615 | 127,99,55 buteendicarbz.di-E.-ester *) | 36 | 14 | 47 |
| 655 | 115,143,87 pentaandicarb.zuur di-E.-ester *) | 41 | 0 | 16 |
| 659 | 43,88,55,127 carbonzuur E.-ester *) | 0 | 18 | 0 |
| 661 | 43,115 CHO | 0 | 0 | 22 |
| 679 | 120,41,135,96 | 30 | 21 | 14 |
| 686 | 139,67,53,96 ethyl,methyl-pyrrooldion C7H9O2N | 79 | 39 | 27 |
| 703 | 113,69,141,168 C8 H8 O3 | 18 | 0 | 14 |
| 728 | 91,164,65,119 benzeenazijnzuur E.-ester *) | 0 | 29 | 0 |
| 729 | 66,109,137,182 f=182 C9 H10 O3 | 34 | 0 | 15 |
| 742 | 43,131,85 f=168 C8 H8 O3 | 0 | 0 | 12 |
| 766 | 71,117,43,89 hydroxybutaandizuur di-E.-ester ? *) | 25 | 0 | 18 |
| 769 | 43,133,99,105,148 | 26 | 21 | 21 |
| 785 | 85 (klein:57,136) | 18 | 0 | 0 |
| 796 | 143,115,114,87 di-E.-ester pentaandizuur *) | 34 | 21 | 16 |
| 804 | 100,43,109,131 | 31 | 0 | 18 |
| 810 | 110,119,43 | 29 | 21 | 20 |
| 817 | 104,76,50,148 ftaalzuuranhydride | 0 | 17 | 0 |

| | | | | |
|---|---|---|---|---|
| 819 | 151,180 C12 H20 O ? | 0 | 0 | 24 |
| 820 | 158,128,208,206,210 arom ClBrverb? | 52 | 0 | 0 |
| 835 | 43,135 | 0 | 19 | 0 |
| 837 | 144,117,77 methyl-quinoxaline ? C9 H8 N2 | 18 | 0 | 0 |
| 844 | (99),133,164 ethyltoluaat *) | 0 | 0 | 15 |
| 863 | 88,101 E.-ester C9-carb.zuur *) | 0 | 21 | 0 |
| 865 | 110,43,125,96,82 | 31 | 0 | 0 |
| 870 | 150,135,107,77 hydroxyMe.acetofenon of C4-fenol | 20 | 0 | 0 |
| 880 | 121,136,122,137 C?-fenol ? | 62 | 41 | 21 |
| 884 | 86,140,68,113 | 0 | 0 | 24 |
| 885 | 158,159,113,96 | 60 | 0 | 20 |
| 898 | 85,157,113,148,180 | 23 | 0 | 0 |
| 901 | (67),122,137 acetyl-dimethyl pyrrool C8H11 ON | 0 | 34 | 23 |
| 910 | 137,108,94 trimethylhydroxypyridine | 36 | 0 | 0 |
| 947 | 121,164,136,91 f=164 arom. | 0 | 0 | 18 |
| 950 | 43,112,126,(164) | 46 | 0 | 14 |
| 957 | 101,129,55,73 dicarb.zuur di-E.-ester *) | 24 | 0 | 20 |
| 974 | 105,160,187 | 0 | 29 | 21 |
| 975 | 145,160,115 C11H12O | 54 | 0 | 0 |
| 990 | 85,158,341,429 Si-verb.? | 33 | 0 | 0 |
| 991 | 133,105,150,178 een arom. | 0 | 0 | 28 |
| 1002 | 43,128,55,174 f=174 | 36 | 24 | 22 |
| 1012 | 45,88,90,99,118,162 | 32 | 33 | 20 |
| 1027 | 133,(100,154) | 0 | 0 | 22 |
| 1029 | 145,115,160,91, C11H12O-verb. | 28 | 0 | 0 |
| 1044 | 126,153,53 f=153 | 28 | 0 | 15 |
| 1051 | 53,114,140,91 | 29 | 0 | 0 |
| 1053 | 111,168,112,98,167 | 26 | 26 | 20 |
| 1071 | 108,147,99 | 44 | 0 | 0 |
| 1079 | 84,116 f=193 CHO | 42 | 25 | 25 |
| 1115 | 108,153,125,97 | 20 | 0 | 13 |
| 1136 | 123,168,210 f=210 | 26 | 26 | 20 |
| 1163 | 123,131,105,174 f=210 | 26 | 0 | 0 |
| 1193 | 97,43,69,110,125 | 35 | 29 | 0 |
| 1203 | 176,104 4,7-diMe-1,3-isobenzofuraandion | 24 | 0 | 0 |
| 1212 | 114,139,142,185,188 f=188 | 42 | 0 | 0 |
| 1240 | 101,129 f=185 dicarb.z. di-E.-ester *) | 37 | 40 | 0 |
| 1244 | 167,166,139 carbazool ? (base) | 72 | 47 | 33 |
| 1258 | 151,166,123 tert.butyl-1,2-benzeendiol | 46 | 38 | 45 |
| 1269 | 111,121,180,155 | 29 | 43 | 36 |
| 1276 | 123 (klein:43,169,240) f=240 | 38 | 0 | 29 |
| 1303 | 107,180, hydroxyfenylazijnzuur E.-ester *) | 31 | 0 | 0 |
| 1316 | 132,44,133 | 0 | 0 | 23 |
| 1328 | 43,66,281,173 | 36 | 0 | 0 |
| 1332 | 125,53,151,180 | 38 | 0 | 28 |
| 1348 | 151,110,43 | 40 | 0 | 0 |
| 1352 | 57,185 | 0 | 0 | 29 |
| 1367 | 135 (klein:120,77,91,192) | 0 | 0 | 87 |
| 1372 | 70,55,56,71,98,85, CH-onverz | 0 | 45 | 0 |
| 1382 | 149,223 di C4-ftalaat | 0 | 0 | 23 |
| 1412 | 160,(193?) | 33 | 0 | 0 |
| 1422 | 169,142,242,171 chl.toloxyE.propionaat(=mecoprop?) | 54 | 26 | 0 |
| 1428 | 88,101 ester C12-carb.zuur *) | 39 | 0 | 20 |
| 1436 | 121,71,43,147,164,173 | 54 | 0 | 27 |
| 1443 | 59,43,71 suikerachtige | 0 | 50 | 22 |
| 1464 | 103,47,75 poly-ether | 0 | 0 | 33 |
| 1469 | 137(klein:210,121) | 24 | 0 | 0 |
| 1498 | 107,161,67 | 27 | 0 | 0 |
| 1510 | 165,137,67,166 | 158 | 93 | 64 |
| 1529 | 103,47,75 poly-ether | 0 | 0 | 28 |
| 1552 | 220,147,233 | 30 | 0 | 0 |
| 1561 | 167,168,112 | 41 | 0 | 0 |
| 1587 | 129,157,187,245,303 poly-ol n x 58 | 0 | 49 | 34 |
| 1626 | 147 | 44 | 0 | 0 |
| 1628 | 163,179 | 0 | 0 | 31 |
| 1671 | 176 | 40 | 0 | 0 |
| 1685 | 189,161,117 | 77 | 0 | 0 |
| 1742 | I.S. | 100 | 100 | 100 |
| 1766 | 88,101(mw256) ethylester C14-zuur *) | 45 | 28 | 27 |
| 1828 | 133,207,234,280 | 47 | 0 | 0 |
| 1860 | 68,55,41,82,95 | 77 | 0 | 0 |
| 1866 | 184,77,141,116 N-R,N-methyl benzeensulfonamide | 90 | 43 | 0 |
| 1898 | 70,41,194,96 | 74 | 44 | 67 |
| 1911 | 222,177,150 arom. zuur ? | 34 | 0 | 0 |
| 1925 | 82,81,57,68,95 f=278 | 68 | 0 | 0 |
| 1957 | 105,95,82,123 | 41 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 1986 | 133,220,149,91,294 | 65 | 0 | 0 |
| 1959 | 79,93,55 | 55 | 0 | 0 |
| 2021 | 79,95,105 | 46 | 0 | 0 |
| 2038 | 55,41,263,312 | 82 | 59 | 0 |
| 2072 | 88,101,284 palmitinezuur E.-ester *) | 133 | 66 | 101 |
| 2261 | 236,251 (fenolachtig ??) | 0 | 56 | 0 |
| 2309 | 79,67,95,55,41,108 f=306 linoleenzuur E.-ester *) | 99 | 0 | 0 |
| 2334 | 235,293,91,173,322 fenolachtige ? | 37 | 0 | 0 |
| 2368 | 221 | 31 | 0 | 0 |
| 2381 | 55,221,135 | 32 | 0 | 0 |
| 2608 | 131,103,59 | 0 | 0 | 32 |
| 2682 | 221,229,117,397 | 27 | 0 | 0 |
| 2756 | 57,71,85,(mw364?) | 36 | 0 | 0 |
| 2767 | 122,149 | 36 | 0 | 0 |
| | | 5948 | 2543 | 3143 |

| pH 7 | O U D D O R P | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1511 | 1512 | 1513 |
| 51 | 45,73,101 | 45 | 0 | 0 |
| 80 | 55,98,m.cyclopentanon | 29 | 0 | 0 |
| 127 | 57,96,67 cyclohexanol | 24 | 0 | 0 |
| 161 | 82,39,43,156,112 | 26 | 0 | 0 |
| 183 | 45,59,89 | 50 | 0 | 0 |
| 202 | benzaldehyde | 44 | 0 | 0 |
| 337 | 69,82,124,140,C9H16-O | 38 | 0 | 0 |
| 340 | 45,96,128,138 | 39 | 0 | 0 |
| 375 | 124,54,105,77 | 24 | 0 | 0 |
| 405 | 45,75,77,93,105,123 | 18 | 0 | 0 |
| 420 | 112,126,140 | 28 | 0 | 0 |
| 435 | 108,152, C10H16O | 62 | 0 | 0 |
| 470 | 43,71,41,58,95,110,128, | 88 | 0 | 0 |
| 473 | 83,123 | 57 | 0 | 0 |
| 480 | 82,91,138,121 | 25 | 0 | 0 |
| 507 | t-butylcyclohexenon C10H16-O | 106 | 271 | 0 |
| 537 | 42,56,122,139,154,C10H18-O | 64 | 221 | 0 |
| 561 | ethylbenzaldehyde | 113 | 247 | 0 |
| 589 | 131,132,103,77 m.benzofuran | 104 | 0 | 0 |
| 622 | 58,99,131,132 | 0 | 169 | 0 |
| 650 | 75,149,114,177,nitroftaalz.anh. | 27 | 0 | 0 |
| 672 | 139,67,C7H9NO2"pyrrol" | 0 | 167 | 0 |
| 710 | 162,147,133,105 triethylbenzeen | 28 | 0 | 0 |
| 762 | 133,105,148 | 39 | 0 | 0 |
| 799 | 146,147,131 aminomethyldureen | 40 | 0 | 0 |
| 836 | 149,105,77,C4-O-benzeen | 37 | 0 | 0 |
| 871 | 131,103,162 methylcinnamaat | 25 | 0 | 0 |
| 897 | 145,160,175,tetram.indoline? | 42 | 0 | 0 |
| 1044 | 163,79,135,105 | 39 | 0 | 0 |
| 1055 | 150,165,Nmeth.Neth.3methoxyaniline | 34 | 0 | 0 |
| 1085 | 43,109,151,picolylacetaat | 19 | 0 | 0 |
| 1092 | 163,135,79,91 | 39 | 0 | 0 |
| 1155 | 161,193,133,77,208 | 33 | 0 | 0 |
| 1156 | 164,108,136,179,4-isopr.7-m.-azepine2,5dion | 27 | 0 | 0 |
| 1255 | tributylfosfaat | 47 | 0 | 0 |
| 1271 | 178,193,150,1156+CH3 | 36 | 0 | 0 |
| 1291 | 127,170 terp. | 32 | 0 | 0 |
| 1412 | 187,245,diacetonglucose | 0 | 138 | 52 |
| 1422 | 121,164,92,219 methoxyfenyl-aceton | 36 | 0 | 0 |
| 1425 | 71,43,128,155,173 | 101 | 0 | 70 |
| 1510 | 84,127,42,110,153,167 | 0 | 105 | 0 |
| 1542 | 79,123 | 31 | 0 | 0 |
| 1608 | 173,201,simazine | 43 | 0 | 0 |
| 1624 | 249,251,63,trichl.eth.fosfaat | 44 | 0 | 0 |
| 1632 | 200,215,atrazine | 68 | 0 | 0 |
| 1672 | 77,107,141,170,N-C4benzeensulfonamide | 37 | 0 | 0 |
| 1685 | 134,162,190,214 | 38 | 0 | 0 |
| 1722 | I.S. | 100 | 100 | 100 |
| 1759 | 194,109,67,55,82,161,caffeine | 18 | 0 | 0 |
| 1777 | 143,224,191,258 | 33 | 0 | 0 |
| 1837 | diC4ftalaat | 80 | 94 | 108 |
| 1977 | diC4ftalaat | 39 | 0 | 0 |
| 2049 | 169,168,difenylamine | 23 | 0 | 0 |
| 2486 | 133,204,274,302 | 108 | 0 | 0 |
| 2694 | 277,278,77,201,trifen.fosfine.oxide | 72 | 0 | 0 |
| | | 2301 | 1412 | 230 |

| pH 2 | O U D D O R P | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1511zs | 1512zs | 1513zs |
| 7 | 67,43,59 | 50 | 59 | 31 |
| 20 | 45,61,43,59,76,84,104 f=104 | 137 | 190 | 129 |
| 23 | 84,54 | 66 | 60 | 0 |
| 31 | 43,87,116 f=116 | 67 | 92 | 86 |
| 50 | 45,43,75 f=103 | 0 | 80 | 66 |
| 51 | 45,62 urethaan ? | 120 | 144 | 65 |
| 56 | 95,96 furaancarboxyaldehyde ? | 59 | 36 | 17 |
| 56 | 59,80,81 f=81 | 27 | 59 | 39 |
| 74 | 69,99,41,39 buteenzuur E.-ester *) | 44 | 60 | 31 |
| 88 | 55,43,98,109 methylfuranon | 36 | 37 | 26 |
| 102 | 55,83,128 f=128 C4 H7 COOH-E.-ester *) | 0 | 31 | 25 |
| 134 | 57,67,96,40 f=96 C6 H8 O | 0 | 40 | 28 |
| 138 | 73,55,104 | 40 | 12 | 0 |
| 148 | 40,39,68,59 f=98 C6 H10 O | 38 | 35 | 25 |
| 162 | 47,103,73,75 (f=128) C4 H7 COOH-E.-ester *) | 73 | 51 | 64 |
| 170 | 83,55,128 methylbuteenzuur E.-ester *) | 33 | 48 | 39 |
| 173 | 47,61,103,89 diethoxyethanol | 0 | 28 | 0 |
| 177 | 43,60,88 3-oxobutaanzuur E.-ester *) | 47 | 104 | 78 |
| 193 | 122,107,121 C2-fenol ? | 22 | 30 | 14 |
| 194 | 43,71 | 0 | 55 | 39 |
| 195 | 59,58,89,45 methoxy-tert-butanol | 61 | 0 | 0 |
| 197 | 83,67,55,43,100,110 CHO | 0 | 31 | 22 |
| 203 | 55,41,67,83 cyclohexaanthiol? | 0 | 123 | 0 |
| 207 | 110,109,53,methylfurancarboxaldehyde. | 49 | 28 | 24 |
| 223 | 85,70,57,102 f=193 | 17 | 17 | 19 |
| 233 | 45,74 | 63 | 73 | 114 |
| 247 | 43,102,74 2-Me-3-oxobutaanzuur E.-ester (mw.144) * | 33 | 44 | 36 |
| 251 | 69,43 | 33 | 36 | 22 |
| 265 | 45,59,111,139 f=139 CHO | 127 | 63 | 50 |
| 279 | 42,43,45,129 f=144 | 27 | 31 | 48 |
| 293 | 76,104 | 0 | 27 | 0 |
| 296 | 69,55,82,126 f=142 C9H18O-verb.? | 36 | 0 | 0 |
| 304 | 54,126,39 f=142 | 0 | 40 | 36 |
| 326 | 109,124 CHO (mog.triMecyclopentanon) | 27 | 0 | 0 |
| 330 | 57,67,110,41 f=144 | 32 | 35 | 20 |
| 334 | 91,105,120 C3-benzeen | 36 | 30 | 18 |
| 342 | 43,57,97,127 f=144 | 30 | 33 | 29 |
| 347 | 82,56,69,140 triMecyclohexanon | 0 | 36 | 29 |
| 356 | 43,99,129 4-oxopentaanzuur E.-ester (mw.144) *) | 90 | 122 | 94 |
| 379 | 133,115,43,88 propaandizuur di-E.-ester *) | 226 | 342 | 287 |
| 402 | 83,55,210 joodcyclohexaan | 60 | 27 | 78 |
| 407 | 71,99,43,129 f=144 C4 H7 O COOH-E.-ester *) | 31 | 46 | 45 |
| 427 | 47,75,103 diethoxyethaanzuur E.-ester ? *) | 55 | 51 | 144 |
| 429 | 39,68,53,98,140 CHO | 101 | 44 | 29 |
| 438 | 68,39,138 terpeen ? | 90 | 0 | 0 |
| 440 | 74,129 f=174 | 0 | 61 | 36 |
| 444 | 105,77,57 | 0 | 39 | 29 |
| 461 | 43,61,117,89,145 triEmethoxysilaan | 51 | 66 | 153 |
| 476 | 82,54,39 triMecy.hexenon ?? | 110 | 33 | 23 |
| 488 | 82,138 trimethylcyclohexenon | 27 | 28 | 0 |
| 516 | 68,96,152 triMecyclohexeendion(mw152) | 47 | 63 | 36 |
| 536 | 101,129 alif.dicarb.zuur di-E.-ester ? *) | 0 | 31 | 17 |
| 542 | 47,75,103 alkoxysilaan ? | 43 | 60 | 94 |
| 547 | 56,83,107,122,139 f=154 terpenoide | 0 | 34 | 12 |
| 558 | 82,54,112 f=152 terpenoide | 66 | 29 | 16 |
| 567 | 109,99,53,154 f=154 terpenoide | 56 | 30 | 29 |
| 575 | 103,71,145,168 diethoxy-alkaan | 0 | 70 | 92 |
| 597 | 101,129 butaandizuur di-E.ester *) | 0 | 135 | 173 |
| 599 | 133,134,105,91 ethylbenzaldehyde | 24 | 0 | 0 |
| 615 | 127,99,55 buteendicarbz.di-E.-ester *) | 66 | 116 | 114 |
| 655 | 115,143,87 pentaandicarb.zuur di-E.-ester *) | 23 | 34 | 34 |
| 658 | 88,101 C8 carbonzuur E.-ester *) | 0 | 0 | 0 |
| 659 | 43,88,55,127 carbonzuur E.-ester *) | 0 | 22 | 17 |
| 661 | 43,115 CHO | 0 | 27 | 25 |
| 679 | 120,41,135,96 | 0 | 25 | 20 |
| 680 | 120 (klein:91,134) | 54 | 0 | 0 |
| 686 | 139,67,53,96 ethyl,methyl-pyrrooldion C7H9O2N | 58 | 53 | 25 |
| 698 | 59,113 | 19 | 0 | 0 |
| 703 | 113,69,141,168 C8 H8 O3 | 15 | 23 | 28 |
| 713 | 141,106 chloormethylaniline | 0 | 18 | 0 |
| 728 | 91,164,65,119 benzeenazijnzuur E.-ester *) | 32 | 23 | 0 |
| 729 | 66,109,137,182 f=182 C9 H10 O3 | 0 | 17 | 0 |
| 742 | 43,131,85 f=168 C8 H8 O3 | 0 | 0 | 17 |
| 754 | 109,43,133,182 f=182 C9 H10 O3 | 0 | 20 | 12 |

| | | | | |
|---|---|---|---|---|
| 766 | 71,117,43,89 hydroxybutaandizuur di-E.-ester ? *) | 36 | 55 | 41 |
| 769 | 43,133,99,105,148 | 32 | 0 | 30 |
| 796 | 143,115,114,87 di-E.-ester pentaandizuur *) | 31 | 34 | 32 |
| 804 | 100,43,109,131 | 33 | 23 | 0 |
| 810 | 110,119,43 | 33 | 30 | 22 |
| 817 | 104,76,50,148 ftaalzuuranhydride | 35 | 18 | 0 |
| 819 | 151,180 C12 H20 O ? | 0 | 0 | 17 |
| 843 | 135,150,107 tert.butylfenol | 0 | 28 | 0 |
| 844 | (99),133,164 ethyltoluaat *) | 0 | 0 | 18 |
| 865 | 110,43,125,96,82 | 29 | 0 | 0 |
| 880 | 121,136,122,137 C?-fenol ? | 40 | 34 | 0 |
| 884 | 86,140,68,113 | 34 | 55 | 36 |
| 898 | 85,157,113,148,180 | 17 | 0 | 0 |
| 904 | 67,95,43,111,128,145 | 31 | 0 | 0 |
| 910 | 137,108,94 trimethylhydroxypyridine | 0 | 28 | 0 |
| 918 | 105,43,94,129,178 | 23 | 15 | 0 |
| 939 | 83,125,96,55 | 30 | 0 | 0 |
| 947 | 121,164,136,91 f=164 arom. | 0 | 0 | 16 |
| 950 | 43,112,126,(164) | 42 | 0 | 0 |
| 957 | 101,129,55,73 dicarb.zuur di-E.-ester *) | 37 | 47 | 32 |
| 962 | 149,121,164 tert.butylcresol | 53 | 0 | 0 |
| 973 | 114,115,68 | 0 | 24 | 21 |
| 974 | 105,160,187 | 30 | 0 | 0 |
| 984 | 75,143,111 | 51 | 0 | 0 |
| 988 | 85,133,74,105 | 0 | 0 | 30 |
| 989 | 99,74,85,143 | 0 | 28 | 0 |
| 990 | 85,158,341,429 Si-verb.? | 37 | 0 | 0 |
| 995 | 43,117,71,141 | 0 | 24 | 0 |
| 1002 | 43,128,55,174 f=174 | 0 | 44 | 35 |
| 1009 | 45,74,101 | 31 | 0 | 0 |
| 1012 | 45,88,90,99,118,162 | 27 | 30 | 0 |
| 1021 | 131,103,176 fenylpropeenzuur E.-ester ? *) | 0 | 20 | 29 |
| 1044 | 126,153,53 f=153 | 0 | 33 | 28 |
| 1053 | 111,168,112,98,167 | 0 | 35 | 28 |
| 1079 | 84,116 f=193 CHO | 42 | 35 | 34 |
| 1089 | 134 (klein:84,193) | 60 | 0 | 0 |
| 1115 | 108,153,125,97 | 36 | 19 | 16 |
| 1131 | 59,121,201,148 | 31 | 0 | 0 |
| 1132 | 59,120 | 42 | 0 | 0 |
| 1136 | 123,168,210 f=210 | 0 | 28 | 21 |
| 1144 | 152,76 | 39 | 0 | 0 |
| 1150 | 47,103,75 | 0 | 0 | 20 |
| 1163 | 123,131,105,174 f=210 | 0 | 22 | 0 |
| 1164 | 121,120 | 38 | 0 | 0 |
| 1178 | 122,149,177 | 27 | 0 | 0 |
| 1193 | 97,43,69,110,125 | 36 | 35 | 28 |
| 1203 | 176,104 4,7-diMe-1,3-isobenzofuraandion | 0 | 31 | 26 |
| 1212 | 114,139,142,185,188 f=188 | 40 | 38 | 30 |
| 1218 | 173,127,128,99 ethaantricarboxylaat tri-E.-ester * | 0 | 37 | 40 |
| 1240 | 101,129 f=185 dicarb.z. di-E.-ester *) | 0 | 43 | 31 |
| 1244 | 167,166,139 carbazool ? (base) | 53 | 51 | 39 |
| 1258 | 151,166,123 tert.butyl-1,2-benzeendiol | 26 | 22 | 31 |
| 1261 | 137,151,144 | 53 | 18 | 0 |
| 1269 | 111,121,180,155 | 0 | 38 | 29 |
| 1276 | 123 (klein:43,169,240) f=240 | 33 | 29 | 24 |
| 1302 | 127,55,69,170 C10H18O2-terpenoide | 140 | 0 | 0 |
| 1307 | 70,55,56,107 f=180 | 149 | 54 | 36 |
| 1328 | 43,66,281,173 | 43 | 0 | 0 |
| 1332 | 125,53,151,180 | 0 | 54 | 40 |
| 1336 | 127,128,41,55,(169,170) C10H18O2-terpenoide | 101 | 0 | 0 |
| 1355 | 127,69,55,41,170 C10H18O2-terpenoide | 237 | 0 | 22 |
| 1367 | 135 (klein:120,77,91,192) | 0 | 0 | 46 |
| 1372 | 70,55,56,71,98,85, CH-onverz | 166 | 78 | 77 |
| 1382 | 149,223 di C4-ftalaat | 39 | 0 | 18 |
| 1396 | 127,55,170 terpenoide C10H18O2 | 62 | 0 | 0 |
| 1414 | 77,205,193 | 47 | 0 | 0 |
| 1415 | 141,142,215,113,189 | 0 | 24 | 25 |
| 1422 | 169,142,242,171 chl.toloxyE.propionaat(=mecoprop?) | 53 | 24 | 0 |
| 1428 | 88,101 ester C12-carb.zuur *) | 0 | 30 | 22 |
| 1436 | 121,71,43,147,164,173 | 146 | 36 | 20 |
| 1443 | 59,43,71 suikerachtige | 0 | 42 | 0 |
| 1448 | 154,55,108 hexeendicarbonzuur Di-E.-ester *) | 87 | 0 | 0 |
| 1456 | 110,81,95 CHO | 72 | 0 | 0 |
| 1464 | 103,47,75 poly-ether | 0 | 0 | 39 |
| 1492 | 110,81,95,55 | 67 | 0 | 0 |
| 1486 | 59,71,205,207,209,265,267 | 54 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 1510 | 165,137,67,166 | 98 | 117 | 79 |
| 1522 | 106,179,77 fenoxycarbonzuur ? | 40 | 0 | 0 |
| 1529 | 103,47,75 poly-ether | 0 | 0 | 35 |
| 1533 | 162,164,189,191 diCl.fenoxyE.propionaat = 2,4-DP | 46 | 0 | 0 |
| 1547 | 146,188 dihydrotrimethylnaftalenon | 0 | 25 | 0 |
| 1552 | 220,147,233 | 53 | 0 | 0 |
| 1560 | 221,91,182,222,236 | 69 | 0 | 0 |
| 1587 | 129,157,187,245,303 poly-ol n x 58 | 74 | 58 | 43 |
| 1592 | 152,43,139,111,123,153 | 89 | 33 | 28 |
| 1634 | 77,91,141 | 70 | 0 | 0 |
| 1695 | 173,157,145,59,231,289 f=231 suikerachtige | 163 | 61 | 82 |
| 1742 | I.S. | 100 | 100 | 100 |
| 1743 | 143,213 f=254 | 0 | 0 | 31 |
| 1766 | 88,101(mw256) ethylester C14-zuur *) | 62 | 51 | 27 |
| 1777 | 194,109,241 | 49 | 0 | 0 |
| 1778 | 181,226 | 0 | 0 | 27 |
| 1794 | 243,241,245,260,288,286 tetrachl-E.-benzoaat *) | 76 | 44 | 0 |
| 1828 | 133,207,234,280 | 57 | 0 | 0 |
| 1854 | 84,155,112 | 0 | 45 | 38 |
| 1866 | 184,77,141,116 N-R,N-methyl benzeensulfonamide | 326 | 108 | 40 |
| 1880 | 88,101 (mw270) ethylester C15-zuur *) | 0 | 0 | 40 |
| 1898 | 70,41,194,96 | 56 | 25 | 0 |
| 1911 | 222,177,150 arom. zuur ? | 43 | 0 | 0 |
| 1919 | 173 (klein:117,91) | 55 | 0 | 0 |
| 1929 | 221,145,43,91,280 | 0 | 39 | 50 |
| 1970 | 135,193,234 | 52 | 42 | 0 |
| 1986 | 133,220,149,91,294 | 94 | 38 | 54 |
| 2014 | 45,220,192,148 | 74 | 0 | 0 |
| 2040 | 55,41,69,88,282 palmetoliezuur E.-ester *) | 132 | 156 | 95 |
| 2053 | 55,41,69,88 onverz. C16 zuur E.-ester *) | 0 | 47 | 0 |
| 2056 | 234,91,133 | 57 | 0 | 0 |
| 2072 | 88,101,284 palmitinezuur E.-ester *) | 140 | 72 | 124 |
| 2223 | 249,193,207,221 | 39 | 0 | 0 |
| 2236 | 77,141,144,184 N-R',N-methyl benzeensulfonamide | 48 | 0 | 0 |
| 2284 | 79,67,91,55 f=261 onverz. alkaan of zuur | 64 | 0 | 0 |
| 2309 | 79,67,95,55,41,108 f=306 linoleenzuur E.-ester *) | 39 | 0 | 0 |
| 2334 | 235,293,91,173,322 fenolachtige ? | 87 | 0 | 0 |
| 2353 | 88,101 (mw.312) ethylester C18-zuur *) | 0 | 56 | 0 |
| 2368 | 221 | 115 | 0 | 0 |
| 2381 | 55,221,135 | 40 | 0 | 0 |
| 2506 | 133,274,55,91 | 98 | 0 | 0 |
| 2516 | 79,67,55,93,105 C20-onverz. zuur *) | 33 | 0 | 0 |
| 2607 | 180,207,235,193,294 | 67 | 0 | 0 |
| 2638 | 131,235,279,307,415 | 68 | 0 | 0 |
| 2705 | 67,101,375,439 | 0 | 0 | 82 |
| 2861 | 265,131,103,45 | 34 | 0 | 0 |
| | | 8211 | 5996 | 4957 |

| pH 7 | E N S C H E D E | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1398 | 1399 | 1400 |
| 80 | 55,98,m.cyclopentanon | 54 | 0 | 35 |
| 105 | 91,106,ethylbenzeen | 16 | 0 | 0 |
| 127 | 57,96,67 cyclohexanol | 31 | 0 | 0 |
| 161 | 82,39,43,156,112 | 31 | 0 | 0 |
| 170 | 43,107,97,69,130 | 25 | 0 | 0 |
| 184 | 79,107,122,m.benzylalcohol | 0 | 39 | 0 |
| 198 | 110,109,69,53 | 79 | 56 | 31 |
| 202 | benzaldehyde | 59 | 0 | 0 |
| 236 | 43,74,102,m-butyraat | 65 | 0 | 0 |
| 237 | 43,55,70 | 36 | 0 | 0 |
| 244 | 43,69,108 | 0 | 46 | 0 |
| 262 | 124,149,193 | 0 | 35 | 0 |
| 272 | 69,138 | 26 | 0 | 0 |
| 286 | 69,82,110,126 4m cycloheptanon | 49 | 0 | 0 |
| 290 | 69,39,41,68 | 45 | 0 | 0 |
| 307 | 43,99 | 55 | 0 | 0 |
| 318 | 109,110,124,trim.cyclopentenon | 47 | 0 | 24 |
| 337 | 69,82,124,140,C9H16-O | 58 | 46 | 28 |
| 340 | 45,96,128,138 | 88 | 0 | 0 |
| 366 | 106,43,116 | 28 | 0 | 0 |
| 375 | 124,54,105,77 | 44 | 0 | 0 |
| 382 | 82,138 | 20 | 0 | 0 |
| 393 | 107,108,4m-fenol | 40 | 0 | 0 |
| 420 | 112,126,140 | 41 | 43 | 26 |
| 470 | 43,71,41,58,95,110,128, | 95 | 0 | 0 |
| 473 | 83,123 | 0 | 0 | 37 |
| 480 | 82,91,138,121 | 35 | 0 | 0 |
| 507 | t-butylcyclohexenon C10H16-O | 161 | 76 | 51 |
| 531 | 54,87,125,43,152 | 26 | 0 | 0 |
| 537 | 42,56,122,139,154,C10H18-O | 96 | 61 | 46 |
| 561 | ethylbenzaldehyde | 41 | 63 | 28 |
| 580 | 58,91,110,142 | 48 | 0 | 0 |
| 589 | 131,132,103,77 m.benzofuran | 0 | 35 | 28 |
| 606 | 119,91,43,134 M.fenyl ethanon | 35 | 0 | 0 |
| 672 | 139,67,C7H9NO2"pyrrol" | 126 | 32 | 51 |
| 691 | 137,109,152,123 triMecyclohexeencarb.aldeh.?? | 21 | 0 | 0 |
| 709 | 129,102 isochinoline | 25 | 0 | 0 |
| 718 | 66,137,vinyl,methyl-pyrrole-2,5dion | 36 | 0 | 0 |
| 734 | 138,123,107 | 25 | 0 | 0 |
| 752 | 129,102 chinoline | 22 | 0 | 0 |
| 759 | 45,75,133 | 0 | 36 | 0 |
| 762 | 133,105,148 | 23 | 0 | 0 |
| 795 | 43,139,112 | 38 | 0 | 0 |
| 800 | 117,90,89 N-verb. | 53 | 0 | 0 |
| 826 | 43,176,161 C11H12O2 | 34 | 0 | 0 |
| 838 | 196,139,166,95,67 | 40 | 0 | 0 |
| 847 | 96,110,125,67 | 48 | 0 | 0 |
| 854 | 143,115 m.chinoline | 36 | 0 | 0 |
| 872 | 67,96,121,136 | 70 | 0 | 0 |
| 943 | 43,84,136 | 47 | 0 | 0 |
| 947 | 167,196/198 | 34 | 0 | 0 |
| 1044 | 163,79,135,105 | 0 | 43 | 0 |
| 1086 | 100,123,55,210 | 40 | 0 | 0 |
| 1107 | 95,165,109 | 47 | 0 | 0 |
| 1113 | 157,115 dimethyl chinoline | 95 | 0 | 0 |
| 1123 | 75,89,61,133,(158) | 38 | 0 | 0 |
| 1247 | 77,170 | 41 | 0 | 0 |
| 1256 | 69,112,147,164 | 47 | 0 | 0 |
| 1260 | 77,111,137,180,tetrahydrotrim.benzofuranon | 54 | 0 | 0 |
| 1301 | 126,206,193,147 | 57 | 0 | 0 |
| 1389 | 181,148,108,meth.thio.benzthiazole | 107 | 0 | 0 |
| 1426 | 135,43,107,183 | 59 | 0 | 0 |
| 1462 | 122,167,191,81 | 61 | 0 | 0 |
| 1475 | 108,151,91,123 | 77 | 0 | 0 |
| 1527 | 84,127,110,153,167 | 83 | 0 | 0 |
| 1608 | 173,201,simazine | 95 | 23 | 55 |
| 1624 | 249,251,63,trichl.eth.fosfaat | 106 | 0 | 0 |
| 1632 | 200,215,atrazine | 99 | 81 | 62 |
| 1651 | 173,109,192,158 | 55 | 0 | 0 |
| 1661 | 151,216,184 | 47 | 0 | 0 |
| 1685 | 134,162,190,214 | 53 | 0 | 58 |
| 1722 | I.S. | 100 | 100 | 100 |
| 1759 | 194,109,67,55,82,161,caffeine | 64 | 0 | 0 |
| 1837 | diC4ftalaat | 59 | 103 | 113 |

| | | | | |
|---|---|---|---|---|
| 1852 | 43,68...123 | 120 | 0 | 0 |
| 1865 | 77,95,202,109,226,246 | 46 | 0 | 0 |
| 1917 | 55,81,68,95,278 | 81 | 0 | 0 |
| 1982 | 105,168,208,152,246 | 53 | 0 | 0 |
| 2007 | palmitinezuur | 82 | 0 | 0 |
| 2020 | 162,238,metolachloor | 74 | 0 | 0 |
| 2486 | 133,204,274,302 | 60 | 0 | 0 |
| 2648 | 183,274,115,315 | 42 | 0 | 0 |
| 2758 | diC8ftalaat | 43 | 0 | 0 |
| | | 4142 | 819 | 672 |

| pH 2 | E N S C H E D E | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1398zs | 1399zs | 1400zs |
| 20 | 45,61,43,59,76,84,104 f=104 | 0 | 139 | 183 |
| 23 | 84,54 | 89 | 56 | 0 |
| 31 | 43,87,116 f=116 | 22 | 49 | 84 |
| 49 | 45,74 | 48 | 0 | 0 |
| 50 | 45,43,75 f=103 | 0 | 74 | 83 |
| 51 | 45,62 urethaan ? | 65 | 129 | 142 |
| 56 | 95,96 furaancarboxyaldehyde ? | 24 | 0 | 0 |
| 56 | 59,80,81 f=81 | 23 | 49 | 0 |
| 66 | 59,43 | 0 | 0 | 59 |
| 74 | 69,99,41,39 buteenzuur E.-ester *) | 24 | 41 | 57 |
| 88 | 55,43,98,109 methylfuranon | 33 | 31 | 54 |
| 97 | 96,42,68,40 C6 H8 O cyclohexenon ?? | 15 | 0 | 26 |
| 102 | 55,83,128 f=128 C4 H7 COOH-E.-ester *) | 0 | 0 | 34 |
| 115 | 91,106 C2-benzeen | 0 | 0 | 20 |
| 134 | 57,67,96,40 f=96 C6 H8 O | 0 | 45 | 64 |
| 138 | 73,55,104 | 53 | 0 | 0 |
| 148 | 40,39,68,59 f=98 C6 H10 O | 47 | 38 | 50 |
| 156 | 55,97,126 CHO | 0 | 0 | 22 |
| 162 | 47,103,73,75 (f=128) C4 H7 COOH-E.-ester *) | 31 | 36 | 0 |
| 170 | 83,55,128 methylbuteenzuur E.-ester *) | 34 | 51 | 78 |
| 177 | 43,60,88 3-oxobutaanzuur E.-ester *) | 65 | 89 | 126 |
| 193 | 122,107,121 C2-fenol ? | 0 | 26 | 35 |
| 194 | 43,71 | 24 | 42 | 47 |
| 203 | 55,41,67,83 cyclohexaanthiol? | 0 | 30 | 0 |
| 207 | 110,109,53,methylfurancarboxaldehyde. | 59 | 39 | 63 |
| 223 | 85,70,57,102 f=193 | 22 | 19 | 23 |
| 233 | 45,74 | 44 | 49 | 98 |
| 247 | 43,102,74 2-Me-3-oxobutaanzuur E.-ester (mw.144) * | 42 | 64 | 77 |
| 265 | 45,59,111,139 f=139 CHO | 31 | 93 | 106 |
| 279 | 42,43,45,129 f=144 | 0 | 22 | 33 |
| 283 | 110,88,55,68,99,41 | 0 | 17 | 0 |
| 293 | 76,104 | 0 | 29 | 0 |
| 296 | 69,55,82,126 f=142 C9H18O-verb.? | 40 | 55 | 0 |
| 304 | 54,126,39 f=142 | 0 | 0 | 57 |
| 326 | 109,124 CHO (mog.triMecyclopentanon) | 0 | 27 | 0 |
| 330 | 57,67,110,41 f=144 | 36 | 47 | 53 |
| 334 | 91,105,120 C3-benzeen | 0 | 33 | 46 |
| 342 | 43,57,97,127 f=144 | 28 | 0 | 39 |
| 347 | 82,56,69,140 triMecyclohexanon | 24 | 36 | 43 |
| 356 | 43,99,129 4-oxopentaanzuur E.-ester (mw.144) *) | 91 | 112 | 131 |
| 379 | 133,115,43,88 propaandizuur di-E.-ester *) | 138 | 250 | 277 |
| 402 | 83,55,210 joodcyclohexaan | 31 | 26 | 91 |
| 407 | 71,99,43,129 f=144 C4 H7 O COOH-E.-ester *) | 47 | 38 | 48 |
| 427 | 47,75,103 diethoxyethaanzuur E.-ester ? *) | 0 | 47 | 57 |
| 429 | 39,68,53,98,140 CHO | 82 | 67 | 81 |
| 438 | 68,39,138 terpeen ? | 56 | 0 | 0 |
| 443 | 43,68,129 | 0 | 70 | 87 |
| 461 | 43,61,117,89,145 triEmethoxysilaan | 19 | 36 | 48 |
| 476 | 82,54,39 triMecy.hexenon ?? | 61 | 63 | 81 |
| 488 | 82,138 trimethylcyclohexenon | 29 | 28 | 30 |
| 516 | 68,96,152 triMecyclohexeendion(mw152) | 0 | 78 | 84 |
| 530 | 67,109,95,137,152 terpenoide ?? | 0 | 16 | 0 |
| 536 | 101,129 alif.dicarb.zuur di-E.-ester ? *) | 33 | 36 | 42 |
| 542 | 47,75,103 alkoxysilaan ? | 0 | 46 | 52 |
| 547 | 56,83,107,122,139 f=154 terpenoide | 40 | 41 | 38 |
| 558 | 82,54,112 f=152 terpenoide | 45 | 41 | 43 |
| 567 | 109,99,53,154 f=154 terpenoide | 24 | 26 | 33 |
| 570 | 134,133,105,119 ethylbenzaldehyde | 0 | 25 | 0 |
| 575 | 103,71,145,168 diethoxy-alkaan | 20 | 30 | 36 |
| 597 | 101,129 butaandizuur di-E.ester *) | 90 | 97 | 130 |
| 615 | 127,99,55 buteendicarbz.di-E.-ester *) | 53 | 59 | 86 |
| 655 | 115,143,87 pentaandicarb.zuur di-E.-ester *) | 17 | 24 | 0 |
| 659 | 43,88,55,127 carbonzuur E.-ester *) | 17 | 24 | 0 |
| 661 | 43,115 CHO | 0 | 15 | 0 |
| 679 | 120,41,135,96 | 12 | 22 | 25 |
| 680 | 120 (klein:91,134) | 11 | 0 | 0 |
| 686 | 139,67,53,96 ethyl,methyl-pyrrooldion C7H9O2N | 55 | 68 | 74 |
| 703 | 113,69,141,168 C8 H8 O3 | 0 | 16 | 20 |
| 729 | 66,109,137,182 f=182 C9 H10 O3 | 22 | 23 | 33 |
| 742 | 43,131,85 f=168 C8 H8 O3 | 0 | 14 | 26 |
| 754 | 109,43,133,182 f=182 C9 H10 O3 | 0 | 14 | 23 |
| 766 | 71,117,43,89 hydroxybutaandizuur di-E.-ester ? *) | 53 | 36 | 67 |
| 769 | 43,133,99,105,148 | 0 | 22 | 32 |
| 785 | 85 (klein:57,136) | 16 | 16 | 17 |

| | | | | |
|---|---|---|---|---|
| 796 | 143,115,114,87 di-E.-ester pentaandizuur *) | 28 | 0 | 28 |
| 804 | 100,43,109,131 | 28 | 36 | 24 |
| 810 | 110,119,43 | 0 | 38 | 41 |
| 812 | 123,95,139 | 28 | 0 | 0 |
| 817 | 104,76,50,148 ftaalzuuranhydride | 33 | 0 | 20 |
| 819 | 151,180 C12 H20 O ? | 0 | 18 | 16 |
| 844 | (99),133,164 ethyltoluaat *) | 0 | 0 | 17 |
| 864 | 101,129,167,169 gehalo.dizuur?? | 0 | 0 | 26 |
| 880 | 121,136,122,137 C?-fenol ? | 48 | 51 | 54 |
| 889 | 123,137,67,96 | 35 | 28 | 0 |
| 898 | 85,157,113,148,180 | 11 | 0 | 0 |
| 918 | 105,43,94,129,178 | 16 | 0 | 0 |
| 925 | 154,98,69,111 terpenoide | 13 | 18 | 0 |
| 947 | 121,164,136,91 f=164 arom. | 0 | 24 | 16 |
| 950 | 43,112,126,(164) | 29 | 24 | 25 |
| 957 | 101,129,55,73 dicarb.zuur di-E.-ester *) | 31 | 32 | 37 |
| 963 | 123,109,67,96,55 | 0 | 17 | 0 |
| 972 | 123 | 0 | 20 | 0 |
| 973 | 114,115,68 | 17 | 17 | 22 |
| 990 | 85,158,341,429 Si-verb.? | 23 | 22 | 0 |
| 992 | 85,99,115 | 0 | 0 | 29 |
| 995 | 43,117,71,141 | 25 | 0 | 0 |
| 1002 | 43,128,55,174 f=174 | 38 | 39 | 41 |
| 1012 | 45,88,90,99,118,162 | 40 | 39 | 48 |
| 1044 | 126,153,53 f=153 | 25 | 33 | 37 |
| 1053 | 111,168,112,98,167 | 31 | 33 | 38 |
| 1079 | 84,116 f=193 CHO | 22 | 33 | 37 |
| 1136 | 123,168,210 f=210 | 34 | 35 | 35 |
| 1163 | 123,131,105,174 f=210 | 24 | 0 | 0 |
| 1178 | 122,149,177 | 19 | 0 | 0 |
| 1203 | 176,104 4,7-diMe-1,3-isobenzofuraandion | 38 | 55 | 50 |
| 1212 | 114,139,142,185,188 f=188 | 34 | 40 | 48 |
| 1218 | 173,127,128,99 ethaantricarboxylaat tri-E.-ester * | 0 | 17 | 35 |
| 1240 | 101,129 f=185 dicarb.z. di-E.-ester *) | 32 | 31 | 44 |
| 1244 | 167,166,139 carbazool ? (base) | 42 | 36 | 58 |
| 1259 | 57,99 | 0 | 26 | 31 |
| 1269 | 111,121,180,155 | 29 | 35 | 34 |
| 1276 | 123 (klein:43,169,240) f=240 | 0 | 32 | 24 |
| 1332 | 125,53,151,180 | 0 | 52 | 49 |
| 1374 | 151,196 4-hydr-3-meth-E.-benzoaat *) | 0 | 19 | 0 |
| 1382 | 149,223 di C4-ftalaat | 33 | 0 | 0 |
| 1393 | 120,155,211 | 0 | 17 | 0 |
| 1415 | 141,142,215,113,189 | 0 | 26 | 39 |
| 1422 | 169,142,242,171 chl.toloxyE.propionaat(=mecoprop?) | 44 | 0 | 0 |
| 1428 | 88,101 ester C12-carb.zuur *) | 36 | 29 | 44 |
| 1436 | 121,71,43,147,164,173 | 0 | 26 | 43 |
| 1469 | 137(klein:210,121) | 0 | 32 | 0 |
| 1510 | 165,137,67,166 | 110 | 119 | 153 |
| 1552 | 220,147,233 | 60 | 0 | 0 |
| 1561 | 167,168,112 | 0 | 33 | 36 |
| 1592 | 152,43,139,111,123,153 | 0 | 40 | 0 |
| 1642 | 195,121,268 f=268 fenoxyzuur ? | 0 | 44 | 41 |
| 1742 | I.S. | 100 | 100 | 100 |
| 1766 | 88,101(mw256) ethylester C14-zuur *) | 102 | 33 | 28 |
| 1828 | 133,207,234,280 | 91 | 0 | 0 |
| 1860 | 68,55,41,82,95 | 125 | 0 | 0 |
| 1868 | 88,101(mw270) ethylester C15-zuur *) | 0 | 46 | 0 |
| 1880 | 88,101 (mw270) ethylester C15-zuur *) | 0 | 48 | 0 |
| 1897 | 81,68,57,95 f=278 | 108 | 0 | 0 |
| 1925 | 82,81,57,68,95 f=278 | 134 | 0 | 0 |
| 1957 | 105,95,82,123 | 104 | 0 | 0 |
| 1970 | 135,193,234 | 112 | 0 | 0 |
| 1959 | 79,93,55 | 121 | 0 | 0 |
| 2040 | 55,41,69,88,282 palmetoliezuur E.-ester *) | 140 | 153 | 0 |
| 2072 | 88,101,284 palmitinezuur E.-ester *) | 160 | 63 | 106 |
| 2126 | 235,263,91,107 | 120 | 0 | 0 |
| 2284 | 79,67,91,55 f=261 onverz. alkaan of zuur | 208 | 0 | 0 |
| 2303 | 67,81,55,95,41 f=308 C18-dubbel onverz. zuur *) | 123 | 0 | 0 |
| 2309 | 79,67,95,55,41,108 f=306 linoleenzuur E.-ester *) | 168 | 0 | 0 |
| 2315 | 55,41,69,88,265 f=306 CH of CHO | 125 | 0 | 0 |
| 2334 | 235,293,91,173,322 fenolachtige ? | 115 | 0 | 0 |
| 2353 | 88,101 (mw.312) ethylester C18-zuur *) | 100 | 45 | 0 |
| 2368 | 221 | 112 | 0 | 0 |
| 2516 | 79,67,55,93,105 C20-onverz. zuur *) | 101 | 0 | 0 |
| | | 5410 | 4641 | 5047 |

| pH 7 | W E E S P E R K A R S P E L | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1325 | 1326 | 1327 |
| 45 | 54,98,71 | 36 | 0 | 0 |
| 50 | 45,95,96 | 40 | 0 | 0 |
| 51 | 45,73,101 | 0 | 96 | 52 |
| 80 | 55,98,m.cyclopentanon | 37 | 0 | 34 |
| 105 | 91,106,ethylbenzeen | 13 | 0 | 0 |
| 127 | 57,96,67 cyclohexanol | 23 | 0 | 0 |
| 161 | 82,39,43,156,112 | 17 | 0 | 0 |
| 198 | 110,109,69,53 | 41 | 71 | 31 |
| 202 | benzaldehyde | 43 | 0 | 0 |
| 228 | 68,110,93,55 | 20 | 0 | 0 |
| 230 | trimethylthiofosfaat | 0 | 0 | 31 |
| 235 | 94 | 20 | 0 | 0 |
| 237 | 43,55,70 | 26 | 0 | 0 |
| 244 | 43,69,108 | 21 | 0 | 0 |
| 286 | 69,82,110,126 4m cycloheptanon | 28 | 0 | 0 |
| 290 | 69,39,41,68 | 27 | 0 | 0 |
| 297 | 109,138 methyl propionyl furan | 28 | 0 | 0 |
| 318 | 109,110,124,trim.cyclopentenon | 32 | 0 | 26 |
| 322 | 67,43,110,109 dihydro propenyl furan | 32 | 0 | 0 |
| 328 | C3 benzeen | 24 | 0 | 0 |
| 337 | 69,82,124,140,C9H16-O | 36 | 0 | 0 |
| 340 | 45,96,128,138 | 0 | 0 | 33 |
| 343 | 96,81,95,123,138trimethyl cyclohexenon | 44 | 0 | 0 |
| 346 | 56,81,123 | 0 | 67 | 0 |
| 373 | acetofenon | 39 | 0 | 0 |
| 375 | 124,54,105,77 | 32 | 53 | 0 |
| 382 | 82,138 | 18 | 38 | 0 |
| 393 | 107,108,4m-fenol | 25 | 0 | 0 |
| 420 | 112,126,140 | 0 | 0 | 30 |
| 439 | 91,105,77,117,132 | 0 | 86 | 0 |
| 472 | triethylfosfaat | 73 | 0 | 0 |
| 473 | 83,123 | 0 | 22 | 0 |
| 480 | 82,91,138,121 | 23 | 55 | 0 |
| 507 | t-butylcyclohexenon C10H16-O | 93 | 149 | 31 |
| 537 | 42,56,122,139,154,C10H18-O | 83 | 124 | 80 |
| 550 | 47,75,103,129,diethoxypentanon | 20 | 0 | 0 |
| 553 | 61,89,75 | 27 | 0 | 0 |
| 561 | ethylbenzaldehyde | 56 | 61 | 40 |
| 577 | 142,129,122,107,143 | 29 | 0 | 0 |
| 589 | 131,132,103,77 m.benzofuran | 39 | 58 | 0 |
| 606 | 119,91,43,134 M.fenyl ethanon | 21 | 0 | 0 |
| 628 | 134,43,101,166 | 18 | 0 | 0 |
| 660 | 89,103,61,75 | 39 | 0 | 0 |
| 668 | 120,91,134 N-ethylmethylbenzenamine?? | 24 | 0 | 0 |
| 672 | 139,67,C7H9NO2"pyrrol" | 55 | 63 | 52 |
| 691 | 137,109,152,123 triMecyclohexeencarb.aldeh.?? | 19 | 0 | 0 |
| 710 | 162,147,133,105 triethylbenzeen | 23 | 0 | 0 |
| 718 | 66,137,vinyl,methyl-pyrrole-2,5dion | 19 | 0 | 0 |
| 756 | 107,108,121 | 14 | 0 | 0 |
| 762 | 133,105,148 | 21 | 0 | 0 |
| 763 | 103,47,75,127 | 18 | 0 | 0 |
| 800 | 117,90,89 N-verb. | 39 | 0 | 0 |
| 816 | 120,135,92 | 25 | 0 | 0 |
| 836 | 149,105,77,C4-O-benzeen | 42 | 64 | 40 |
| 845 | m-naftaleen | 42 | 0 | 0 |
| 860 | 150,135,107,77 C4-fenol? | 36 | 0 | 0 |
| 867 | 133,149,164,ethyltoluaat | 28 | 0 | 30 |
| 871 | 131,103,162 methylcinnamaat | 0 | 0 | 29 |
| 873 | methylnaftaleen | 31 | 0 | 0 |
| 891 | 137,94 | 14 | 0 | 0 |
| 907 | 119,151,92,65 2-amino methylbenzoaat | 27 | 0 | 0 |
| 912 | methylnaftaleen | 23 | 0 | 0 |
| 927 | 106,163+Si | 24 | 0 | 0 |
| 938 | 75 | 35 | 0 | 0 |
| 946 | 113,177,178,43,149 | 23 | 0 | 0 |
| 963 | 132,160,175,trimethyloxindool | 23 | 24 | 26 |
| 989 | methylindool | 38 | 0 | 0 |
| 1022 | 75 | 38 | 0 | 0 |
| 1043 | 75,61,89,101,167 | 39 | 0 | 0 |
| 1078 | 112,(43,111,149) | 31 | 0 | 0 |
| 1092 | 163,135,79,91 | 21 | 0 | 0 |
| 1107 | 95,165,109 | 29 | 0 | 0 |
| 1123 | 75,89,61,133,(158) | 104 | 0 | 0 |
| 1161 | 147,119,118 dihydro-methyl indolone | 38 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 1182 | 92,43,164,65,208 | 33 | 0 | 0 |
| 1199 | 154,153 acenafteen | 41 | 0 | 0 |
| 1260 | 77,111,137,180,tetrahydrotrim.benzofuranon | 56 | 28 | 0 |
| 1321 | 43,193,180,69,208 | 43 | 0 | 0 |
| 1359 | 69,83,57,143 | 65 | 0 | 0 |
| 1412 | 187,245,diacetonglucose | 72 | 39 | 42 |
| 1425 | 71,43,128,155,173 | 35 | 0 | 0 |
| 1475 | 108,43,75,133 | 47 | 0 | 0 |
| 1722 | I.S. | 100 | 100 | 100 |
| 1837 | diC4ftalaat | 309 | 0 | 109 |
| 1977 | diC4ftalaat | 96 | 0 | 0 |
| 2486 | 133,204,274,302 | 0 | 65 | 0 |
| | | 2961 | 1161 | 715 |

| pH 2 | W E E S P E R K A R S P E L | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1325zs | 1326zs | 1327zs |
| 20 | 45,61,43,59,76,84,104 f=104 | 74 | 76 | 121 |
| 30 | 43,41,69 | 0 | 0 | 43 |
| 31 | 43,87,116 f=116 | 40 | 41 | 77 |
| 49 | 45,74 | 42 | 54 | 0 |
| 50 | 45,43,75 f=103 | 0 | 0 | 83 |
| 51 | 45,62 urethaan ? | 60 | 81 | 118 |
| 56 | 95,96 furaancarboxyaldehyde ? | 42 | 24 | 0 |
| 56 | 59,80,81 f=81 | 30 | 35 | 52 |
| 74 | 69,99,41,39 buteenzuur E.-ester *) | 43 | 32 | 43 |
| 88 | 55,43,98,109 methylfuranon | 43 | 22 | 40 |
| 97 | 96,42,68,40 C6 H8 O cyclohexenon ?? | 17 | 0 | 0 |
| 102 | 55,83,128 f=128 C4 H7 COOH-E.-ester *) | 0 | 21 | 37 |
| 134 | 57,67,96,40 f=96 C6 H8 O | 37 | 31 | 53 |
| 136 | 73,45,57,95,122 | 32 | 0 | 0 |
| 148 | 40,39,68,59 f=98 C6 H10 O | 45 | 27 | 46 |
| 156 | 55,97,126  CHO | 0 | 13 | 20 |
| 162 | 47,103,73,75 (f=128) C4 H7 COOH-E.-ester *) | 25 | 37 | 47 |
| 170 | 83,55,128 methylbuteenzuur E.-ester *) | 0 | 32 | 54 |
| 173 | 47,61,103,89 diethoxyethanol | 17 | 0 | 0 |
| 177 | 43,60,88 3-oxobutaanzuur E.-ester *) | 47 | 64 | 107 |
| 193 | 122,107,121 C2-fenol ? | 12 | 13 | 25 |
| 194 | 43,71 | 27 | 0 | 45 |
| 197 | 83,67,55,43,100,110 CHO | 0 | 22 | 0 |
| 207 | 110,109,53,methylfurancarboxaldehyde. | 44 | 31 | 53 |
| 223 | 85,70,57,102 f=193 | 35 | 16 | 23 |
| 233 | 45,74 | 28 | 55 | 132 |
| 245 | 94,66 C6 H6 O fenol ? | 28 | 0 | 0 |
| 247 | 43,102,74 2-Me-3-oxobutaanzuur E.-ester (mw.144) * | 40 | 31 | 74 |
| 251 | 69,43 | 0 | 29 | 0 |
| 265 | 45,59,111,139 f=139 CHO | 24 | 25 | 70 |
| 279 | 42,43,45,129 f=144 | 0 | 20 | 47 |
| 283 | 110,88,55,68,99,41 | 29 | 0 | 0 |
| 293 | 76,104 | 0 | 0 | 22 |
| 296 | 69,55,82,126 f=142 C9H18O-verb.? | 74 | 22 | 41 |
| 304 | 54,126,39 f=142 | 0 | 28 | 0 |
| 326 | 109,124 CHO (mog.triMecyclopentanon) | 38 | 16 | 26 |
| 330 | 57,67,110,41 f=144 | 46 | 35 | 42 |
| 334 | 91,105,120 C3-benzeen | 0 | 23 | 27 |
| 342 | 43,57,97,127 f=144 | 30 | 23 | 31 |
| 347 | 82,56,69,140 triMecyclohexanon | 22 | 21 | 28 |
| 356 | 43,99,129 4-oxopentaanzuur E.-ester (mw.144) *) | 121 | 90 | 146 |
| 379 | 133,115,43,88 propaandizuur di-E.-ester  *) | 185 | 191 | 296 |
| 387 | 82,138 triMe.cyclohexenon | 0 | 16 | 0 |
| 402 | 83,55,210 joodcyclohexaan | 23 | 46 | 51 |
| 407 | 71,99,43,129 f=144 C4 H7 O COOH-E.-ester *) | 41 | 33 | 56 |
| 427 | 47,75,103 diethoxyethaanzuur E.-ester ? *) | 0 | 31 | 70 |
| 429 | 39,68,53,98,140 CHO | 96 | 41 | 43 |
| 438 | 68,39,138 terpeen ? | 65 | 43 | 77 |
| 444 | 105,77,57 | 0 | 29 | 0 |
| 461 | 43,61,117,89,145 triEmethoxysilaan | 21 | 46 | 94 |
| 476 | 82,54,39 triMecy.hexenon ?? | 61 | 40 | 56 |
| 488 | 82,138 trimethylcyclohexenon | 37 | 24 | 24 |
| 516 | 68,96,152 triMecyclohexeendion(mw152) | 70 | 54 | 85 |
| 536 | 101,129 alif.dicarb.zuur di-E.-ester ? *) | 20 | 21 | 24 |
| 542 | 47,75,103 alkoxysilaan ? | 28 | 33 | 62 |
| 547 | 56,83,107,122,139 f=154 terpenoide | 47 | 37 | 39 |
| 558 | 82,54,112 f=152 terpenoide | 54 | 22 | 36 |
| 567 | 109,99,53,154 f=154 terpenoide | 28 | 28 | 26 |
| 570 | 134,133,105,119 ethylbenzaldehyde | 55 | 0 | 0 |
| 575 | 103,71,145,168 diethoxy-alkaan | 46 | 39 | 56 |
| 597 | 101,129 butaandizuur di-E.ester *) | 110 | 0 | 0 |
| 599 | 133,134,105,91 ethylbenzaldehyde | 37 | 10 | 12 |
| 615 | 127,99,55 buteendicarbz.di-E.-ester *) | 57 | 52 | 67 |
| 655 | 115,143,87 pentaandicarb.zuur di-E.-ester *) | 24 | 21 | 45 |
| 659 | 43,88,55,127 carbonzuur E.-ester *) | 24 | 0 | 27 |
| 661 | 43,115 CHO | 0 | 19 | 26 |
| 679 | 120,41,135,96 | 0 | 13 | 22 |
| 680 | 120 (klein:91,134) | 35 | 0 | 0 |
| 686 | 139,67,53,96 ethyl,methyl-pyrrooldion C7H9O2N | 46 | 44 | 43 |
| 698 | 59,113 | 14 | 0 | 0 |
| 703 | 113,69,141,168 C8 H8 O3 | 0 | 14 | 24 |
| 728 | 91,164,65,119 benzeenazijnzuur E.-ester *) | 34 | 0 | 0 |
| 729 | 66,109,137,182 f=182 C9 H10 O3 | 0 | 17 | 26 |
| 742 | 43,131,85 f=168 C8 H8 O3 | 0 | 14 | 39 |

| | | | | |
|---|---|---|---|---|
| 766 | 71,117,43,89 hydroxybutaandizuur di-E.-ester ? *) | 30 | 44 | 81 |
| 769 | 43,133,99,105,148 | 33 | 0 | 32 |
| 785 | 85 (klein:57,136) | 17 | 0 | 0 |
| 796 | 143,115,114,87 di-E.-ester pentaandizuur *) | 37 | 24 | 36 |
| 804 | 100,43,109,131 | 25 | 20 | 0 |
| 810 | 110,119,43 | 33 | 22 | 35 |
| 817 | 104,76,50,148 ftaalzuuranhydride | 21 | 0 | 0 |
| 819 | 151,180 C12 H20 O ? | 0 | 16 | 20 |
| 821 | 104,95,76,151 (+ ftaalzuuranhydride) | 22 | 0 | 0 |
| 844 | (99),133,164 ethyltoluaat *) | 0 | 13 | 22 |
| 816 | 157,101,128 | 0 | 0 | 27 |
| 865 | 110,43,125,96,82 | 24 | 0 | 0 |
| 870 | 150,135,107,77 hydroxyMe.acetofenon of C4-fenol | 58 | 0 | 0 |
| 880 | 121,136,122,137 C?-fenol ? | 49 | 0 | 0 |
| 884 | 86,140,68,113 | 47 | 43 | 52 |
| 906 | 169,41,184 f=184 | 0 | 0 | 33 |
| 910 | 137,108,94 trimethylhydroxypyridine | 16 | 22 | 0 |
| 918 | 105,43,94,129,178 | 23 | 10 | 19 |
| 925 | 154,98,69,111 terpenoide | 21 | 0 | 0 |
| 939 | 83,125,96,55 | 28 | 0 | 0 |
| 950 | 43,112,126,(164) | 31 | 16 | 20 |
| 957 | 101,129,55,73 dicarb.zuur di-E.-ester *) | 36 | 30 | 60 |
| 972 | 123 | 0 | 13 | 0 |
| 974 | 105,160,187 | 0 | 0 | 17 |
| 988 | 85,133,74,105 | 27 | 21 | 0 |
| 989 | 99,74,85,143 | 0 | 0 | 35 |
| 995 | 43,117,71,141 | 0 | 19 | 18 |
| 1002 | 43,128,55,174 f=174 | 35 | 28 | 50 |
| 1012 | 45,88,90,99,118,162 | 37 | 19 | 34 |
| 1027 | 133,(100,154) | 0 | 0 | 25 |
| 1044 | 126,153,53 f=153 | 27 | 21 | 34 |
| 1053 | 111,168,112,98,167 | 38 | 24 | 44 |
| 1071 | 108,147,99 | 23 | 16 | 0 |
| 1079 | 84,116 f=193 CHO | 36 | 26 | 38 |
| 1115 | 108,153,125,97 | 22 | 0 | 19 |
| 1136 | 123,168,210 f=210 | 28 | 22 | 34 |
| 1146 | 122,107 | 23 | 0 | 0 |
| 1150 | 47,103,75 | 0 | 0 | 22 |
| 1163 | 123,131,105,174 f=210 | 26 | 0 | 24 |
| 1193 | 97,43,69,110,125 | 30 | 25 | 0 |
| 1195 | 101,157,55,83 f=208 | 0 | 0 | 45 |
| 1203 | 176,104 4,7-diMe-1,3-isobenzofuraandion | 49 | 25 | 41 |
| 1212 | 114,139,142,185,188 f=188 | 0 | 32 | 52 |
| 1213 | 121,114,43 | 44 | 0 | 0 |
| 1218 | 173,127,128,99 ethaantricarboxylaat tri-E.-ester * | 20 | 0 | 41 |
| 1240 | 101,129 f=185 dicarb.z. di-E.-ester *) | 34 | 27 | 39 |
| 1244 | 167,166,139 carbazool ? (base) | 51 | 38 | 53 |
| 1258 | 151,166,123 tert.butyl-1,2-benzeendiol | 28 | 31 | 24 |
| 1261 | 137,151,144 | 23 | 0 | 0 |
| 1269 | 111,121,180,155 | 38 | 0 | 38 |
| 1276 | 123 (klein:43,169,240) f=240 | 37 | 25 | 37 |
| 1296 | 91,155,200 p-tolueensulfonzuur E.-ester *) | 34 | 0 | 0 |
| 1303 | 107,180, hydroxyfenylazijnzuur E.-ester *) | 42 | 0 | 0 |
| 1313 | 107,180,132,77 | 0 | 19 | 32 |
| 1332 | 125,53,151,180 | 50 | 24 | 0 |
| 1348 | 151,110,43 | 0 | 21 | 37 |
| 1367 | 135 (klein:120,77,91,192) | 0 | 0 | 51 |
| 1372 | 70,55,56,71,98,85, CH-onverz | 37 | 23 | 0 |
| 1415 | 141,142,215,113,189 | 0 | 22 | 43 |
| 1428 | 88,101 ester C12-carb.zuur *) | 34 | 29 | 54 |
| 1436 | 121,71,43,147,164,173 | 36 | 34 | 49 |
| 1456 | 110,81,95 CHO | 37 | 0 | 0 |
| 1487 | 107,120,194 hydroxyfenylpropionzuur E.-ester *) | 44 | 0 | 0 |
| 1498 | 107,161,67 | 37 | 0 | 0 |
| 1510 | 165,137,67,166 | 101 | 82 | 117 |
| 1529 | 103,47,75 poly-ether | 0 | 0 | 21 |
| 1561 | 167,168,112 | 0 | 24 | 44 |
| 1587 | 129,157,187,245,303 poly-ol n x 58 | 0 | 27 | 35 |
| 1592 | 152,43,139,111,123,153 | 40 | 0 | 0 |
| 1595 | 98,139 | 0 | 0 | 23 |
| 1652 | 137,150,224 f=224 arom. | 100 | 0 | 0 |
| 1742 | I.S. | 100 | 100 | 100 |
| 1766 | 88,101(mw256) ethylester C14-zuur *) | 103 | 269 | 36 |
| 1860 | 68,55,41,82,95 | 84 | 41 | 0 |
| 1866 | 184,77,141,116 N-R,N-methyl benzeensulfonamide | 102 | 0 | 0 |
| 1898 | 70,41,194,96 | 100 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 1911 | 222,177,150 arom. zuur ? | 104 | 0 | 0 |
| 1925 | 82,81,57,68,95 f=278 | 0 | 61 | 0 |
| 1970 | 135,193,234 | 107 | 0 | 0 |
| 1986 | 133,220,149,91,294 | 0 | 61 | 0 |
| 1959 | 79,93,55 | 107 | 0 | 0 |
| 2013 | 41,79,80,42,91 f=278 | 0 | 72 | 0 |
| 2021 | 79,95,105 | 0 | 96 | 0 |
| 2040 | 55,41,69,88,282 palmetoliezuur E.-ester *) | 247 | 190 | 97 |
| 2053 | 55,41,69,88 onverz. C16 zuur E.-ester *) | 123 | 0 | 0 |
| 2072 | 88,101,284 palmitinezuur E.-ester *) | 181 | 277 | 126 |
| 2284 | 79,67,91,55 f=261 onverz. alkaan of zuur | 0 | 98 | 0 |
| 2303 | 67,81,55,95,41 f=308 C18-dubbel onverz. zuur *) | 0 | 155 | 0 |
| 2309 | 79,67,95,55,41,108 f=306 linoleenzuur E.-ester *) | 0 | 153 | 0 |
| 2315 | 55,41,69,88,265 f=306 CH of CHO | 0 | 98 | 0 |
| 2353 | 88,101 (mw.312) ethylester C18-zuur *) | 0 | 81 | 0 |
| 2516 | 79,67,55,93,105 C20-onverz. zuur *) | 0 | 69 | 0 |
| | | 5530 | 4771 | 5168 |

| pH 7 | K R A L I N G E N | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1182 | 1183 | 1184 |
| 51 | 45,73,101 | 74 | 0 | 0 |
| 80 | 55,98,m.cyclopentanon | 49 | 0 | 0 |
| 86 | 171,173,175,tribr.methaan/dibr.acetonitril | 0 | 0 | 179 |
| 150 | 108+ | 48 | 0 | 0 |
| 183 | 45,59,89 | 0 | 81 | 48 |
| 195 | 59+ | 89 | 0 | 0 |
| 202 | benzaldehyde | 49 | 48 | 25 |
| 346 | 56,81,123 | 48 | 41 | 0 |
| 362 | N.N-dim.benzylamine | 47 | 0 | 0 |
| 375 | 124,54,105,77 | 40 | 0 | 0 |
| 378 | 110,165 | 0 | 32 | 0 |
| 393 | 107,108,4m-fenol | 38 | 0 | 0 |
| 416 | 85,43,99 | 0 | 39 | 0 |
| 439 | 91,105,77,117,132 | 34 | 0 | 0 |
| 472 | triethylfosfaat | 53 | 0 | 30 |
| 478 | 77,121,dimethoxy-ethylbenzeen | 0 | 33 | 0 |
| 507 | t-butylcyclohexenon C10H16-O | 76 | 92 | 51 |
| 537 | 42,56,122,139,154,C10H18-O | 24 | 70 | 36 |
| 561 | ethylbenzaldehyde | 18 | 0 | 0 |
| 672 | 139,67,C7H9NO2"pyrrol" | 42 | 35 | 0 |
| 762 | 133,105,148 | 39 | 0 | 0 |
| 799 | 146,147,131 aminomethyldureen | 41 | 0 | 0 |
| 827 | 43,83,112,150 | 45 | 0 | 0 |
| 841 | 149,133,119,164 | 52 | 0 | 0 |
| 871 | 131,103,162 methylcinnamaat | 48 | 0 | 0 |
| 882 | dichlooraniline | 9 | 0 | 0 |
| 888 | 171,173,dichlobenyl | 9 | 0 | 0 |
| 916 | 144,143,116,85 | 10 | 0 | 0 |
| 1014 | 98,67,151,196 | 42 | 0 | 0 |
| 1044 | 163,79,135,105 | 0 | 0 | 34 |
| 1216 | 59,103 | 62 | 0 | 0 |
| 1248 | 170,126,169,43,85 | 17 | 0 | 0 |
| 1255 | tributylfosfaat | 24 | 58 | 44 |
| 1369 | 149,177,diethylftalaat | 0 | 0 | 45 |
| 1417 | 167 | 0 | 0 | 39 |
| 1425 | 71,43,128,155,173 | 0 | 0 | 47 |
| 1487 | 99,127,153,211,tributylfosfaat | 89 | 0 | 0 |
| 1608 | 173,201,simazine | 27 | 61 | 0 |
| 1624 | 249,251,63,trichl.eth.fosfaat | 0 | 0 | 34 |
| 1632 | 200,215,atrazine | 50 | 95 | 46 |
| 1722 | I.S. | 100 | 100 | 100 |
| 1759 | 194,109,67,55,82,161,caffeine | 36 | 0 | 0 |
| 1837 | diC4ftalaat | 84 | 72 | 118 |
| 1977 | diC4ftalaat | 16 | 0 | 39 |
| 2049 | 169,168,difenylamine | 21 | 0 | 0 |
| 2079 | 99,184,269,77,157 | 16 | 0 | 0 |
| 2486 | 133,204,274,302 | 132 | 108 | 67 |
| | | 1597 | 864 | 881 |

| pH 2 | K R A L I N G E N | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1182zs | 1183zs | 1184zs |
| 20 | 45,61,43,59,76,84,104 f=104 | 0 | 96 | 70 |
| 23 | 84,54 | 0 | 36 | 0 |
| 31 | 43,87,116 f=116 | 83 | 58 | 57 |
| 42 | 43,71,88 | 0 | 22 | 27 |
| 50 | 45,43,75 f=103 | 0 | 0 | 64 |
| 51 | 45,62 urethaan ? | 129 | 89 | 88 |
| 56 | 95,96 furaancarboxyaldehyde ? | 0 | 46 | 25 |
| 56 | 59,80,81 f=81 | 0 | 27 | 0 |
| 66 | 59,43 | 0 | 0 | 45 |
| 74 | 69,99,41,39 buteenzuur E.-ester *) | 0 | 19 | 19 |
| 88 | 55,43,98,109 methylfuranon | 45 | 17 | 17 |
| 102 | 55,83,128 f=128 C4 H7 COOH-E.-ester *) | 0 | 14 | 0 |
| 134 | 57,67,96,40 f=96 C6 H8 O | 0 | 25 | 19 |
| 136 | 73,45,57,95,122 | 55 | 0 | 0 |
| 148 | 40,39,68,59 f=98 C6 H10 O | 55 | 18 | 29 |
| 156 | 55,97,126 CHO | 0 | 13 | 0 |
| 162 | 47,103,73,75 (f=128) C4 H7 COOH-E.-ester *) | 61 | 26 | 29 |
| 170 | 83,55,128 methylbuteenzuur E.-ester *) | 23 | 34 | 29 |
| 173 | 47,61,103,89 diethoxyethanol | 0 | 20 | 0 |
| 177 | 43,60,88 3-oxobutaanzuur E.-ester *) | 97 | 51 | 59 |
| 193 | 122,107,121 C2-fenol ? | 0 | 15 | 0 |
| 195 | 59,58,89,45 methoxy-tert-butanol | 86 | 41 | 34 |
| 207 | 110,109,53,methylfurancarboxaldehyde. | 58 | 36 | 30 |
| 213 | 45,57,75 f=141 CHO | 0 | 0 | 15 |
| 223 | 85,70,57,102 f=193 | 40 | 16 | 16 |
| 233 | 45,74 | 75 | 70 | 87 |
| 246 | 83,55,262,264 broomcyclohexaan | 0 | 0 | 61 |
| 247 | 43,102,74 2-Me-3-oxobutaanzuur E.-ester (mw.144) * | 0 | 50 | 0 |
| 251 | 69,43 | 0 | 19 | 0 |
| 265 | 45,59,111,139 f=139 CHO | 117 | 36 | 26 |
| 279 | 42,43,45,129 f=144 | 0 | 14 | 21 |
| 296 | 69,55,82,126 f=142 C9H18O-verb.? | 73 | 27 | 30 |
| 330 | 57,67,110,41 f=144 | 0 | 23 | 14 |
| 334 | 91,105,120 C3-benzeen | 0 | 17 | 0 |
| 342 | 43,57,97,127 f=144 | 56 | 22 | 24 |
| 347 | 82,56,69,140 triMecyclohexanon | 0 | 19 | 0 |
| 356 | 43,99,129 4-oxopentaanzuur E.-ester (mw.144) *) | 136 | 80 | 70 |
| 379 | 133,115,43,88 propaandizuur di-E.-ester *) | 328 | 177 | 150 |
| 387 | 82,138 triMe.cyclohexenon | 0 | 12 | 0 |
| 402 | 83,55,210 joodcyclohexaan | 107 | 28 | 0 |
| 407 | 71,99,43,129 f=144 C4 H7 O COOH-E.-ester *) | 44 | 13 | 0 |
| 427 | 47,75,103 diethoxyethaanzuur E.-ester ? *) | 0 | 44 | 52 |
| 429 | 39,68,53,98,140 CHO | 149 | 53 | 42 |
| 438 | 68,39,138 terpeen ? | 111 | 59 | 51 |
| 461 | 43,61,117,89,145 triEmethoxysilaan | 55 | 72 | 108 |
| 476 | 82,54,39 triMecy.hexenon ?? | 122 | 107 | 82 |
| 488 | 82,138 trimethylcyclohexenon | 0 | 16 | 0 |
| 516 | 68,96,152 triMecyclohexeendion(mw152) | 64 | 43 | 22 |
| 536 | 101,129 alif.dicarb.zuur di-E.-ester ? *) | 0 | 26 | 0 |
| 542 | 47,75,103 alkoxysilaan ? | 46 | 0 | 35 |
| 547 | 56,83,107,122,139 f=154 terpenoide | 50 | 0 | 0 |
| 558 | 82,54,112 f=152 terpenoide | 73 | 55 | 36 |
| 567 | 109,99,53,154 f=154 terpenoide | 47 | 0 | 0 |
| 575 | 103,71,145,168 diethoxy-alkaan | 55 | 37 | 38 |
| 615 | 127,99,55 buteendicarbz.di-E.-ester *) | 101 | 20 | 22 |
| 632 | 81,85,57,206,208 | 0 | 0 | 42 |
| 655 | 115,143,87 pentaandicarb.zuur di-E.-ester *) | 39 | 27 | 33 |
| 658 | 88,101 C8 carbonzuur E.-ester *) | 0 | 19 | 0 |
| 679 | 120,41,135,96 | 36 | 23 | 14 |
| 686 | 139,67,53,96 ethyl,methyl-pyrrooldion C7H9O2N | 61 | 17 | 15 |
| 703 | 113,69,141,168 C8 H8 O3 | 30 | 12 | 12 |
| 728 | 91,164,65,119 benzeenazijnzuur E.-ester *) | 47 | 0 | 11 |
| 742 | 43,131,85 f=168 C8 H8 O3 | 0 | 15 | 20 |
| 754 | 109,43,133,182 f=182 C9 H10 O3 | 0 | 19 | 14 |
| 766 | 71,117,43,89 hydroxybutaandizuur di-E.-ester ? *) | 61 | 36 | 43 |
| 769 | 43,133,99,105,148 | 0 | 19 | 12 |
| 785 | 85 (klein:57,136) | 20 | 14 | 0 |
| 796 | 143,115,114,87 di-E.-ester pentaandizuur *) | 39 | 31 | 17 |
| 804 | 100,43,109,131 | 34 | 17 | 0 |
| 810 | 110,119,43 | 33 | 0 | 14 |
| 817 | 104,76,50,148 ftaalzuuranhydride | 39 | 15 | 0 |
| 848 | 108,111,43,91,195 | 26 | 0 | 0 |
| 863 | 88,101 E.-ester C9-carb.zuur *) | 0 | 21 | 16 |
| 865 | 110,43,125,96,82 | 30 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 880 | 121,136,122,137 C?-fenol ? | 54 | 26 | 0 |
| 884 | 86,140,68,113 | 61 | 0 | 0 |
| 889 | 123,137,67,96 | 0 | 15 | 0 |
| 898 | 85,157,113,148,180 | 27 | 16 | 19 |
| 904 | 67,95,43,111,128,145 | 0 | 0 | 21 |
| 910 | 137,108,94 trimethylhydroxypyridine | 42 | 20 | 0 |
| 918 | 105,43,94,129,178 | 24 | 0 | 0 |
| 947 | 121,164,136,91 f=164 arom. | 0 | 0 | 21 |
| 950 | 43,112,126,(164) | 39 | 37 | 24 |
| 957 | 101,129,55,73 dicarb.zuur di-E.-ester *) | 48 | 36 | 25 |
| 971 | 88,160 | 0 | 16 | 15 |
| 974 | 105,160,187 | 40 | 0 | 0 |
| 989 | 99,74,85,143 | 0 | 35 | 33 |
| 990 | 85,158,341,429 Si-verb.? | 37 | 0 | 0 |
| 1002 | 43,128,55,174 f=174 | 40 | 41 | 21 |
| 1007 | 74,88 | 0 | 38 | 13 |
| 1012 | 45,88,90,99,118,162 | 48 | 35 | 22 |
| 1043 | 74,60,88 | 0 | 24 | 0 |
| 1044 | 126,153,53 f=153 | 38 | 24 | 22 |
| 1053 | 111,168,112,98,167 | 43 | 30 | 35 |
| 1071 | 108,147,99 | 39 | 0 | 0 |
| 1079 | 84,116 f=193 CHO | 55 | 41 | 31 |
| 1115 | 108,153,125,97 | 31 | 0 | 0 |
| 1121 | 43,121,151,196 | 25 | 0 | 0 |
| 1131 | 59,121,201,148 | 39 | 0 | 0 |
| 1136 | 123,168,210 f=210 | 32 | 17 | 12 |
| 1150 | 47,103,75 | 0 | 16 | 0 |
| 1161 | 91,121 | 0 | 20 | 0 |
| 1163 | 123,131,105,174 f=210 | 39 | 0 | 0 |
| 1193 | 97,43,69,110,125 | 48 | 25 | 0 |
| 1203 | 176,104 4,7-diMe-1,3-isobenzofuraandion | 42 | 0 | 22 |
| 1212 | 114,139,142,185,188 f=188 | 50 | 32 | 22 |
| 1218 | 173,127,128,99 ethaantricarboxylaat tri-E.-ester * | 51 | 21 | 18 |
| 1240 | 101,129 f=185 dicarb.z. di-E.-ester *) | 62 | 34 | 23 |
| 1244 | 167,166,139 carbazool ? (base) | 86 | 42 | 50 |
| 1258 | 151,166,123 tert.butyl-1,2-benzeendiol | 52 | 35 | 19 |
| 1269 | 111,121,180,155 | 0 | 36 | 0 |
| 1270 | 43,122,177 | 55 | 0 | 0 |
| 1276 | 123 (klein:43,169,240) f=240 | 45 | 42 | 15 |
| 1313 | 107,180,132,77 | 43 | 0 | 15 |
| 1328 | 43,66,281,173 | 58 | 0 | 0 |
| 1332 | 125,53,151,180 | 49 | 39 | 22 |
| 1343 | 222,224,207,209,164 dimetoxyClnaftaleen ?? | 0 | 39 | 0 |
| 1348 | 151,110,43 | 0 | 52 | 22 |
| 1350 | 119,159 | 45 | 0 | 0 |
| 1367 | 135 (klein:120,77,91,192) | 67 | 48 | 25 |
| 1382 | 149,223 di C4-ftalaat | 0 | 0 | 21 |
| 1405 | 101,111,129 f=263 | 34 | 0 | 0 |
| 1422 | 169,142,242,171 chl.toloxyE.propionaat(=mecoprop?) | 56 | 0 | 0 |
| 1428 | 88,101 ester C12-carb.zuur *) | 43 | 58 | 28 |
| 1436 | 121,71,43,147,164,173 | 92 | 76 | 45 |
| 1448 | 154,55,108 hexeendicarbonzuur Di-E.-ester *) | 37 | 0 | 0 |
| 1510 | 165,137,67,166 | 94 | 97 | 46 |
| 1528 | 68,159,103,202 | 42 | 0 | 0 |
| 1560 | 221,91,182,222,236 | 63 | 36 | 31 |
| 1561 | 167,168,112 | 0 | 0 | 33 |
| 1592 | 152,43,139,111,123,153 | 40 | 0 | 29 |
| 1609 | 149,177 ftaalzuur di-E.-ester ?*) | 0 | 0 | 26 |
| 1624 | 73,115 | 0 | 0 | 55 |
| 1671 | 176 | 87 | 0 | 0 |
| 1685 | 189,161,117 | 137 | 55 | 0 |
| 1742 | I.S. | 100 | 100 | 100 |
| 1743 | 143,213 f=254 | 0 | 0 | 20 |
| 1766 | 88,101(mw256) ethylester C14-zuur *) | 55 | 33 | 27 |
| 1777 | 194,109,241 | 47 | 0 | 0 |
| 1785 | 95,282 | 37 | 0 | 0 |
| 1828 | 133,207,234,280 | 49 | 0 | 0 |
| 1866 | 184,77,141,116 N-R,N-methyl benzeensulfonamide | 0 | 69 | 44 |
| 1898 | 70,41,194,96 | 73 | 41 | 0 |
| 1911 | 222,177,150 arom. zuur ? | 50 | 0 | 0 |
| 1929 | 221,145,43,91,280 | 61 | 0 | 0 |
| 1970 | 135,193,234 | 57 | 0 | 0 |
| 1986 | 133,220,149,91,294 | 77 | 57 | 38 |
| 2038 | 55,41,263,312 | 102 | 0 | 0 |
| 2044 | 221,147,91,287,308 | 56 | 0 | 0 |
| 2054 | 103,59,219 | 66 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 2072 | 88,101,284 palmitinezuur E.-ester *) | 112 | 91 | 71 |
| 2334 | 235,293,91,173,322 fenolachtige ? | 105 | 0 | 0 |
| 2353 | 88,101 (mw.312) ethylester C18-zuur *) | 0 | 0 | 48 |
| 2381 | 55,221,135 | 45 | 0 | 0 |
| 2506 | 133,274,55,91 | 64 | 22 | 0 |
| 2638 | 131,235,279,307,415 | 72 | 0 | 0 |
| 2682 | 221,229,117,397 | 46 | 0 | 0 |
| | | 6492 | 3709 | 3031 |

| pH 7 | A N D I J K | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1079 | 1080 | 1081 |
| 51 | 45,73,101 | 0 | 0 | 91 |
| 63 | 45,91 | 0 | 9 | 0 |
| 80 | 55,98,m.cyclopentanon | 36 | 0 | 0 |
| 86 | 171,173,175,tribr.methaan/dibr.acetonitril | 0 | 36 | 0 |
| 105 | 91,106,ethylbenzeen | 45 | 0 | 0 |
| 137 | 43,79,99,127 | 0 | 13 | 0 |
| 139 | 107,108,109 | 32 | 0 | 0 |
| 159 | 45,91,111 | 0 | 24 | 0 |
| 165 | 47,103 | 0 | 15 | 0 |
| 166 | 43,60,88 | 0 | 7 | 0 |
| 183 | 45,59,89 | 55 | 26 | 49 |
| 198 | 110,109,69,53 | 36 | 13 | 0 |
| 202 | benzaldehyde | 46 | 0 | 0 |
| 220 | 75,103 | 0 | 9 | 0 |
| 264 | 79,137,93,107,123,151 | 0 | 0 | 80 |
| 272 | 69,138 | 17 | 0 | 0 |
| 288 | 72,119 | 30 | 0 | 0 |
| 293 | 91,126,Chloortolueen | 22 | 8 | 0 |
| 299 | 58,56,70 | 35 | 0 | 0 |
| 307 | 43,99 | 42 | 0 | 0 |
| 318 | 109,110,124,trim.cyclopentenon | 29 | 25 | 0 |
| 340 | 45,96,128,138 | 79 | 0 | 0 |
| 346 | 56,81,123 | 0 | 14 | 0 |
| 357 | 47,82,111 | 0 | 19 | 0 |
| 373 | acetofenon | 31 | 0 | 0 |
| 375 | 124,54,105,77 | 0 | 12 | 0 |
| 382 | 82,138 | 0 | 10 | 0 |
| 390 | 78,104,132,133,2H1,3dihydroIndol2one | 25 | 0 | 0 |
| 393 | 107,108,4m-fenol | 39 | 0 | 0 |
| 395 | 83,85,(107) | 0 | 22 | 0 |
| 405 | 45,75,77,93,105,123 | 18 | 8 | 0 |
| 416 | 85,43,99 | 0 | 7 | 0 |
| 419 | 47,75,121 | 0 | 16 | 0 |
| 423 | 55,98,methylfuranon | 0 | 10 | 0 |
| 432 | NNdimethylaniline | 30 | 0 | 0 |
| 435 | 108,152, C10H16O | 67 | 30 | 36 |
| 478 | 77,121,dimethoxy-ethylbenzeen | 34 | 0 | 0 |
| 507 | t-butylcyclohexenon C10H16-O | 144 | 37 | 0 |
| 537 | 42,56,122,139,154,C10H18-O | 52 | 31 | 0 |
| 550 | 47,75,103,129,diethoxypentanon | 0 | 22 | 0 |
| 561 | ethylbenzaldehyde | 0 | 23 | 0 |
| 580 | 58,91,110,142 | 0 | 15 | 0 |
| 589 | 131,132,103,77 m.benzofuran | 39 | 0 | 0 |
| 605 | 85,59,140 | 0 | 13 | 0 |
| 646 | 98,139 | 0 | 0 | 26 |
| 650 | 75,149,114,177,nitroftaalz.anh. | 25 | 14 | 0 |
| 660 | 89,103,61,75 | 0 | 17 | 0 |
| 672 | 139,67,C7H9NO2"pyrrol" | 90 | 105 | 0 |
| 689 | 59,103,133 | 25 | 0 | 0 |
| 691 | 137,109,152,123 triMecyclohexeencarb.aldeh.?? | 28 | 16 | 0 |
| 704 | 113,43,70 | 0 | 13 | 0 |
| 714 | 107,135,difenylethoxy-ethanon? | 0 | 32 | 0 |
| 762 | 133,105,148 | 0 | 13 | 0 |
| 774 | 106,135,ethylacetofenon | 33 | 15 | 0 |
| 780 | 43,87,161 | 41 | 0 | 0 |
| 787 | 58,83,126 | 0 | 10 | 0 |
| 800 | 117,90,89 N-verb. | 0 | 21 | 0 |
| 806 | 50,76,104,148 | 0 | 13 | 0 |
| 824 | 83,107,171,186 | 0 | 56 | 0 |
| 825 | dimethylftalaat | 59 | 0 | 0 |
| 836 | 149,105,77,C4-O-benzeen | 42 | 0 | 0 |
| 839 | 43,68,123 | 0 | 24 | 0 |
| 845 | m-naftaleen | 0 | 30 | 0 |
| 869 | 79,109,136,137 | 0 | 18 | 0 |
| 897 | 145,160,175,tetram.indoline? | 45 | 16 | 0 |
| 902 | 103 | 0 | 18 | 0 |
| 1006 | 91...111 | 0 | 12 | 0 |
| 1044 | 163,79,135,105 | 0 | 21 | 0 |
| 1048 | 132,160,175,trim.oxindool | 37 | 28 | 0 |
| 1059 | 107,81,147,162 | 0 | 15 | 0 |
| 1085 | 43,109,151,picolylacetaat | 34 | 0 | 0 |
| 1114 | 111,137,151 | 0 | 21 | 0 |
| 1137 | 43,90,111,152 | 0 | 27 | 0 |
| 1198 | 43,69,109,139,165 | 0 | 23 | 0 |

| | | | | |
|---|---|---|---|---|
| 1210 | 123,163 | 0 | 35 | 0 |
| 1247 | 77,170 | 33 | 0 | 0 |
| 1260 | 77,111,137,180,tetrahydrotrim.benzofuranon | 69 | 46 | 0 |
| 1271 | 178,193,150,1156+CH3 | 38 | 0 | 0 |
| 1291 | 127,170 terp. | 48 | 40 | 0 |
| 1325 | 55,127,170, terp | 63 | 29 | 0 |
| 1339 | 55,127,170, terp | 48 | 65 | 0 |
| 1358 | 123,161 | 38 | 0 | 0 |
| 1364 | 98,151 | 30 | 0 | 0 |
| 1400 | 93,132,153 | 38 | 0 | 0 |
| 1412 | 187,245,diacetonglucose | 92 | 64 | 36 |
| 1456 | 85,163,119,181 | 48 | 0 | 0 |
| 1487 | 99,127,153,211,tributylfosfaat | 60 | 39 | 0 |
| 1509 | 162,205,1,2,4triazolo1,5,pyrazine,trim | 38 | 35 | 0 |
| 1542 | 79,123 | 44 | 0 | 0 |
| 1624 | 249,251,63,trichl.eth.fosfaat | 0 | 25 | 0 |
| 1630 | 110,163,215,223 | 60 | 0 | 0 |
| 1632 | 200,215,atrazine | 56 | 25 | 0 |
| 1638 | 111,153,178 | 73 | 0 | 0 |
| 1672 | 77,107,141,170,N-C4benzeensulfonamide | 39 | 33 | 0 |
| 1684 | 147,191 | 48 | 0 | 0 |
| 1722 | I.S. | 100 | 100 | 100 |
| 1759 | 194,109,67,55,82,161,caffeine | 51 | 33 | 0 |
| 1837 | diC4ftalaat | 82 | 41 | 34 |
| 1860 | 77,163 | 50 | 0 | 0 |
| 1907 | 135,77,109,206 | 0 | 28 | 0 |
| 2098 | 128,179,210 | 0 | 37 | 0 |
| 2486 | 133,204,274,302 | 192 | 75 | 0 |
| 2582 | 177,57,215,299 | 0 | 45 | 0 |
| 2584 | 217,185,253 | 70 | 0 | 0 |
| 2694 | 277,278,77,201,trifen.fosfine.oxide | 105 | 43 | 0 |
| 2726 | 118,178,251,368,cholesteen? | 0 | 34 | 0 |
| 2758 | diC8ftalaat | 0 | 122 | 0 |
| | | 2952 | 1944 | 352 |

| pH 2 | A N D I J K | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1079zs | 1080zs | 1081zs |
| 20 | 45,61,43,59,76,84,104 f=104 | 78 | 76 | 44 |
| 23 | 84,54 | 46 | 30 | 0 |
| 30 | 43,41,69 | 0 | 0 | 17 |
| 31 | 43,87,116 f=116 | 24 | 43 | 61 |
| 50 | 45,43,75 f=103 | 0 | 56 | 67 |
| 51 | 45,62 urethaan ? | 73 | 106 | 33 |
| 56 | 95,96 furaancarboxyaldehyde ? | 19 | 33 | 34 |
| 58 | 77,79,49,42,108 chloorazijnzuur E.-ester *) | 0 | 16 | 0 |
| 56 | 59,80,81 f=81 | 24 | 28 | 33 |
| 74 | 69,99,41,39 buteenzuur E.-ester *) | 17 | 22 | 19 |
| 88 | 55,43,98,109 methylfuranon | 27 | 28 | 11 |
| 97 | 96,42,68,40 C6 H8 O cyclohexenon ?? | 0 | 16 | 0 |
| 102 | 55,83,128 f=128 C4 H7 COOH-E.-ester *) | 15 | 16 | 8 |
| 115 | 91,106 C2-benzeen | 0 | 6 | 0 |
| 134 | 57,67,96,40 f=96 C6 H8 O | 27 | 27 | 16 |
| 136 | 73,45,57,95,122 | 38 | 0 | 0 |
| 145 | 83,85,76,48,111 dichloorazijnzuur E.-ester *) | 0 | 39 | 0 |
| 148 | 40,39,68,59 f=98 C6 H10 O | 42 | 18 | 18 |
| 162 | 47,103,73,75 (f=128) C4 H7 COOH-E.-ester *) | 42 | 66 | 25 |
| 170 | 83,55,128 methylbuteenzuur E.-ester *) | 38 | 47 | 23 |
| 173 | 47,61,103,89 diethoxyethanol | 0 | 13 | 0 |
| 177 | 43,60,88 3-oxobutaanzuur E.-ester *) | 56 | 65 | 40 |
| 193 | 122,107,121 C2-fenol ? | 18 | 23 | 12 |
| 195 | 59,58,89,45 methoxy-tert-butanol | 29 | 49 | 25 |
| 197 | 83,67,55,43,100,110 CHO | 0 | 22 | 0 |
| 203 | 55,41,67,83 cyclohexaanthiol? | 27 | 0 | 0 |
| 207 | 110,109,53,methylfurancarboxaldehyde. | 56 | 52 | 14 |
| 223 | 85,70,57,102 f=193 | 20 | 15 | 13 |
| 233 | 45,74 | 57 | 87 | 47 |
| 246 | 83,55,262,264 broomcyclohexaan | 0 | 137 | 56 |
| 247 | 43,102,74 2-Me-3-oxobutaanzuur E.-ester (mw.144) * | 24 | 0 | 0 |
| 251 | 69,43 | 35 | 0 | 0 |
| 254 | 129,127,131,157,155 halogeenverb. | 0 | 13 | 0 |
| 256 | 117,119,121,157 trichlooorazijnzuur E.-ester ? *) | 0 | 15 | 0 |
| 265 | 45,59,111,139 f=139 CHO | 26 | 57 | 17 |
| 279 | 42,43,45,129 f=144 | 26 | 51 | 19 |
| 283 | 110,88,55,68,99,41 | 36 | 0 | 0 |
| 296 | 69,55,82,126 f=142 C9H18O-verb.? | 18 | 44 | 36 |
| 305 | 55,44,95,122 | 0 | 27 | 19 |
| 326 | 109,124 CHO (mog.triMecyclopentanon) | 36 | 30 | 0 |
| 330 | 57,67,110,41 f=144 | 39 | 35 | 15 |
| 334 | 91,105,120 C3-benzeen | 44 | 69 | 19 |
| 342 | 43,57,97,127 f=144 | 34 | 36 | 22 |
| 347 | 82,56,69,140 triMecyclohexanon | 14 | 22 | 21 |
| 356 | 43,99,129 4-oxopentaanzuur E.-ester (mw.144) *) | 93 | 92 | 53 |
| 379 | 133,115,43,88 propaandizuur di-E.-ester *) | 160 | 179 | 81 |
| 387 | 82,138 triMe.cyclohexenon | 0 | 23 | 17 |
| 402 | 83,55,210 joodcyclohexaan | 51 | 56 | 27 |
| 407 | 71,99,43,129 f=144 C4 H7 O COOH-E.-ester *) | 47 | 27 | 14 |
| 427 | 47,75,103 diethoxyethaanzuur E.-ester ? *) | 71 | 0 | 0 |
| 429 | 39,68,53,98,140 CHO | 122 | 186 | 48 |
| 438 | 68,39,138 terpeen ? | 77 | 94 | 0 |
| 441 | 44,108,152 terpenoide | 0 | 30 | 0 |
| 444 | 105,77,57 | 25 | 0 | 0 |
| 461 | 43,61,117,89,145 triEmethoxysilaan | 55 | 98 | 83 |
| 476 | 82,54,39 triMecy.hexenon ?? | 77 | 123 | 45 |
| 488 | 82,138 trimethylcyclohexenon | 38 | 34 | 0 |
| 493 | 114,149,130 | 0 | 38 | 17 |
| 516 | 68,96,152 triMecyclohexeendion(mw152) | 56 | 69 | 26 |
| 536 | 101,129 alif.dicarb.zuur di-E.-ester ? *) | 30 | 43 | 21 |
| 542 | 47,75,103 alkoxysilaan ? | 55 | 71 | 31 |
| 547 | 56,83,107,122,139 f=154 terpenoide | 24 | 0 | 0 |
| 558 | 82,54,112 f=152 terpenoide | 56 | 75 | 26 |
| 567 | 109,99,53,154 f=154 terpenoide | 43 | 36 | 23 |
| 570 | 134,133,105,119 ethylbenzaldehyde | 21 | 0 | 29 |
| 575 | 103,71,145,168 diethoxy-alkaan | 41 | 48 | 0 |
| 597 | 101,129 butaandizuur di-E.ester *) | 53 | 0 | 0 |
| 599 | 133,134,105,91 ethylbenzaldehyde | 27 | 0 | 19 |
| 615 | 127,99,55 buteendicarbz.di-E.-ester *) | 109 | 49 | 32 |
| 634 | 85,43,87 CHO | 0 | 48 | 0 |
| 655 | 115,143,87 pentaandicarb.zuur di-E.-ester *) | 29 | 46 | 21 |
| 659 | 43,88,55,127 carbonzuur E.-ester *) | 24 | 0 | 0 |
| 661 | 43,115 CHO | 0 | 36 | 17 |
| 679 | 120,41,135,96 | 28 | 33 | 20 |

| | | | | |
|---|---|---|---|---|
| 686 | 139,67,53,96 ethyl,methyl-pyrrooldion C7H9O2N | 108 | 157 | 44 |
| 703 | 113,69,141,168 C8 H8 O3 | 23 | 21 | 12 |
| 728 | 91,164,65,119 benzeenazijnzuur E.-ester *) | 40 | 36 | 12 |
| 729 | 66,109,137,182 f=182 C9 H10 O3 | 16 | 19 | 0 |
| 742 | 43,131,85 f=168 C8 H8 O3 | 0 | 31 | 20 |
| 744 | 43,74,102,130 | 21 | 0 | 0 |
| 766 | 71,117,43,89 hydroxybutaandizuur di-E.-ester ? *) | 65 | 77 | 32 |
| 769 | 43,133,99,105,148 | 0 | 32 | 31 |
| 785 | 85 (klein:57,136) | 19 | 0 | 14 |
| 796 | 143,115,114,87 di-E.-ester pentaandizuur *) | 45 | 63 | 24 |
| 804 | 100,43,109,131 | 31 | 0 | 0 |
| 810 | 110,119,43 | 35 | 36 | 23 |
| 817 | 104,76,50,148 ftaalzuuranhydride | 40 | 41 | 0 |
| 819 | 151,180 C12 H20 O ? | 0 | 0 | 14 |
| 844 | (99),133,164 ethyltoluaat *) | 30 | 0 | 0 |
| 853 | 43 (klein:55,69,83) | 0 | 48 | 0 |
| 863 | 88,101 E.-ester C9-carb.zuur *) | 30 | 0 | 0 |
| 864 | 101,129,167,169 gehalo.dizuur?? | 0 | 58 | 0 |
| 868 | 127,99 dicarb.zuur(onverz.) di-E.-ester? *) | 0 | 0 | 23 |
| 880 | 121,136,122,137 C?-fenol ? | 50 | 0 | 0 |
| 883 | 141,85 | 0 | 89 | 31 |
| 889 | 123,137,67,96 | 47 | 27 | 0 |
| 897 | 85,113,57 | 0 | 0 | 31 |
| 901 | (67),122,137 acetyl-dimethyl pyrrool C8H11 ON | 0 | 0 | 22 |
| 904 | 67,95,43,111,128,145 | 0 | 0 | 26 |
| 905 | 101,129,181 ester dicarb.zuur *) | 0 | 31 | 0 |
| 910 | 137,108,94 trimethylhydroxypyridine | 28 | 0 | 0 |
| 928 | 97,74 | 0 | 0 | 11 |
| 939 | 83,125,96,55 | 36 | 0 | 0 |
| 947 | 121,164,136,91 f=164 arom. | 0 | 24 | 0 |
| 950 | 43,112,126,(164) | 47 | 41 | 28 |
| 957 | 101,129,55,73 dicarb.zuur di-E.-ester *) | 53 | 63 | 26 |
| 971 | 88,160 | 0 | 0 | 27 |
| 973 | 114,115,68 | 37 | 30 | 0 |
| 979 | 88,101 C10-carb.zuur E.-ester *) | 0 | 0 | 19 |
| 988 | 85,133,74,105 | 0 | 61 | 36 |
| 994 | 85,74,151,252,429 | 56 | 0 | 0 |
| 1002 | 43,128,55,174 f=174 | 41 | 0 | 0 |
| 1005 | 74,43,111 | 0 | 90 | 0 |
| 1012 | 45,88,90,99,118,162 | 40 | 115 | 49 |
| 1027 | 133,(100,154) | 0 | 20 | 0 |
| 1043 | 74,60,88 | 0 | 39 | 36 |
| 1044 | 126,153,53 f=153 | 23 | 0 | 0 |
| 1050 | 101,127,43,200,202 | 0 | 56 | 0 |
| 1053 | 111,168,112,98,167 | 31 | 0 | 31 |
| 1079 | 84,116 f=193 CHO | 0 | 0 | 40 |
| 1090 | 84,123 | 42 | 41 | 0 |
| 1128 | 120 | 0 | 43 | 0 |
| 1132 | 59,120 | 37 | 0 | 0 |
| 1134 | 123,69 | 0 | 49 | 0 |
| 1136 | 123,168,210 f=210 | 41 | 0 | 0 |
| 1150 | 47,103,75 | 0 | 34 | 0 |
| 1162 | 43,101,77 | 0 | 42 | 29 |
| 1164 | 121,120 | 41 | 0 | 0 |
| 1178 | 122,149,177 | 22 | 0 | 0 |
| 1204 | 149,176 | 0 | 65 | 0 |
| 1212 | 114,139,142,185,188 f=188 | 54 | 0 | 33 |
| 1240 | 101,129 f=185 dicarb.z. di-E.-ester *) | 39 | 54 | 0 |
| 1244 | 167,166,139 carbazool ? (base) | 77 | 127 | 77 |
| 1258 | 151,166,123 tert.butyl-1,2-benzeendiol | 65 | 50 | 58 |
| 1269 | 111,121,180,155 | 0 | 61 | 0 |
| 1276 | 123 (klein:43,169,240) f=240 | 0 | 60 | 35 |
| 1302 | 127,55,69,170 C10H18O2-terpenoide | 57 | 89 | 0 |
| 1307 | 70,55,56,107 f=180 | 72 | 115 | 99 |
| 1313 | 107,180,132,77 | 52 | 0 | 38 |
| 1336 | 127,128,41,55,(169,170) C10H18O2-terpenoide | 41 | 54 | 0 |
| 1355 | 127,69,55,41,170 C10H18O2-terpenoide | 108 | 161 | 0 |
| 1367 | 135 (klein:120,77,91,192) | 0 | 87 | 0 |
| 1372 | 70,55,56,71,98,85, CH-onverz | 107 | 166 | 230 |
| 1382 | 149,223 di C4-ftalaat | 42 | 44 | 0 |
| 1396 | 127,55,170 terpenoide C10H18O2 | 0 | 35 | 0 |
| 1405 | 101,111,129 f=263 | 0 | 33 | 0 |
| 1422 | 169,142,242,171 chl.toloxyE.propionaat(=mecoprop?) | 0 | 50 | 0 |
| 1428 | 88,101 ester C12-carb.zuur *) | 0 | 0 | 33 |
| 1436 | 121,71,43,147,164,173 | 72 | 90 | 51 |
| 1454 | 70,55 | 69 | 87 | 94 |

| | | | | |
|---|---|---|---|---|
| 1456 | 110,81,95 CHO | 57 | 0 | 0 |
| 1464 | 103,47,75 poly-ether | 0 | 0 | 17 |
| 1469 | 137(klein:210,121) | 0 | 33 | 0 |
| 1492 | 110,81,95,55 | 59 | 0 | 0 |
| 1486 | 59,71,205,207,209,265,267 | 0 | 44 | 50 |
| 1510 | 165,137,67,166 | 156 | 247 | 109 |
| 1522 | 106,179,77 fenoxycarbonzuur ? | 0 | 29 | 0 |
| 1547 | 146,188 dihydrotrimethylnaftalenon | 0 | 42 | 0 |
| 1557 | 130,199 | 0 | 37 | 0 |
| 1561 | 167,168,112 | 96 | 86 | 0 |
| 1587 | 129,157,187,245,303 poly-ol n x 58 | 64 | 41 | 101 |
| 1595 | 98,139 | 0 | 41 | 0 |
| 1640 | 57,71,85 | 124 | 0 | 0 |
| 1649 | 243,141,169 | 0 | 46 | 0 |
| 1695 | 173,157,145,59,231,289 f=231 suikerachtige | 168 | 166 | 349 |
| 1708 | 88,101,(mw.256) ethylester C14-zuur *) | 70 | 0 | 0 |
| 1742 | I.S. | 100 | 100 | 100 |
| 1743 | 143,213 f=254 | 0 | 0 | 27 |
| 1766 | 88,101(mw256) ethylester C14-zuur *) | 251 | 44 | 46 |
| 1794 | 243,241,245,260,288,286 tetrachl-E.-benzoaat *) | 0 | 56 | 0 |
| 1828 | 133,207,234,280 | 87 | 67 | 40 |
| 1854 | 84,155,112 | 0 | 64 | 52 |
| 1860 | 68,55,41,82,95 | 163 | 0 | 0 |
| 1866 | 184,77,141,116 N-R,N-methyl benzeensulfonamide | 148 | 201 | 69 |
| 1898 | 70,41,194,96 | 0 | 0 | 69 |
| 1907 | 147,91,221,248,294 | 0 | 79 | 0 |
| 1924 | 169 | 0 | 83 | 0 |
| 1925 | 82,81,57,68,95 f=278 | 163 | 0 | 0 |
| 1933 | 107,180,77,221 fenoxyzuur ? | 0 | 75 | 0 |
| 1958 | 82,95,57 f=278 | 77 | 0 | 0 |
| 1970 | 135,193,234 | 83 | 0 | 0 |
| 1986 | 133,220,149,91,294 | 95 | 104 | 70 |
| 2013 | 41,79,80,42,91 f=278 | 347 | 0 | 69 |
| 2021 | 79,95,105 | 98 | 0 | 0 |
| 2037 | 221,158(verlies 73) | 0 | 86 | 73 |
| 2040 | 55,41,69,88,282 palmetoliezuur E.-ester *) | 555 | 0 | 0 |
| 2044 | 221,147,91,287,308 | 0 | 91 | 0 |
| 2052 | 91,147,234,308 | 0 | 87 | 0 |
| 2056 | 234,91,133 | 110 | 0 | 0 |
| 2072 | 88,101,284 palmitinezuur E.-ester *) | 580 | 0 | 136 |
| 2261 | 236,251 (fenolachtig ??) | 0 | 0 | 33 |
| 2264 | 99 (klein:236,252) | 99 | 0 | 0 |
| 2284 | 79,67,91,55 f=261 onverz. alkaan of zuur | 220 | 0 | 0 |
| 2309 | 79,67,95,55,41,108 f=306 linoleenzuur E.-ester *) | 214 | 0 | 0 |
| 2315 | 55,41,69,88,265 f=306 CH of CHO | 140 | 0 | 0 |
| 2323 | 55,69,41,88,101,(264,265) C18 zuur E.-ester *) | 101 | 0 | 0 |
| 2334 | 235,293,91,173,322 fenolachtige ? | 91 | 103 | 0 |
| 2353 | 88,101 (mw.312) ethylester C18-zuur *) | 91 | 0 | 28 |
| 2368 | 221 | 80 | 66 | 27 |
| 2516 | 79,67,55,93,105 C20-onverz. zuur *) | 215 | 0 | 0 |
| 2607 | 180,207,235,193,294 | 28 | 46 | 0 |
| 2608 | 131,103,59 | 0 | 0 | 37 |
| 2861 | 265,131,103,45 | 0 | 18 | 0 |
| | | 9379 | 8088 | 4279 |

| pH 7 | G R O N I N G E N GWG | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1280 | 1281 | 1282 |
| 45 | 54,98,71 | 38 | 54 | 0 |
| 51 | 45,73,101 | 70 | 110 | 0 |
| 80 | 55,98,m.cyclopentanon | 33 | 63 | 0 |
| 105 | 91,106,ethylbenzeen | 18 | 0 | 0 |
| 127 | 57,96,67 cyclohexanol | 0 | 37 | 0 |
| 184 | 79,107,122,m.benzylalcohol | 0 | 34 | 0 |
| 198 | 110,109,69,53 | 31 | 59 | 46 |
| 202 | benzaldehyde | 35 | 52 | 0 |
| 286 | 69,82,110,126 4m cycloheptanon | 0 | 0 | 38 |
| 337 | 69,82,124,140,C9H16-O | 22 | 0 | 38 |
| 343 | 96,81,95,123,138trimethyl cyclohexenon | 31 | 35 | 0 |
| 344 | 45,82,140,trim.cyclohexanon | 0 | 53 | 0 |
| 373 | acetofenon | 0 | 35 | 0 |
| 382 | 82,138 | 0 | 29 | 0 |
| 420 | 112,126,140 | 0 | 56 | 36 |
| 470 | 43,71,41,58,95,110,128, | 0 | 51 | 35 |
| 507 | t-butylcyclohexenon C10H16-O | 83 | 145 | 78 |
| 537 | 42,56,122,139,154,C10H18-O | 72 | 95 | 57 |
| 561 | ethylbenzaldehyde | 34 | 37 | 0 |
| 589 | 131,132,103,77 m.benzofuran | 24 | 0 | 0 |
| 672 | 139,67,C7H9NO2"pyrrol" | 25 | 92 | 74 |
| 710 | 162,147,133,105 triethylbenzeen | 23 | 32 | 0 |
| 718 | 66,137,vinyl,methyl-pyrrole-2,5dion | 0 | 27 | 37 |
| 761 | 133,168,107,51 | 0 | 29 | 0 |
| 762 | 133,105,148 | 19 | 0 | 0 |
| 799 | 146,147,131 aminomethyldureen | 21 | 0 | 0 |
| 825 | dimethylftalaat | 0 | 0 | 23 |
| 836 | 149,105,77,C4-O-benzeen | 0 | 55 | 0 |
| 841 | 149,133,119,164 | 37 | 0 | 0 |
| 871 | 131,103,162 methylcinnamaat | 18 | 0 | 0 |
| 872 | 67,96,121,136 | 0 | 41 | 0 |
| 898 | 147,163,131 | 0 | 36 | 0 |
| 959 | 57,87,115,160 | 0 | 32 | 0 |
| 963 | 132,160,175,trimethyloxindool | 24 | 36 | 0 |
| 1241 | 151,166 | 0 | 0 | 39 |
| 1260 | 77,111,137,180,tetrahydrotrim.benzofuranon | 0 | 22 | 0 |
| 1301 | 126,206,193,147 | 0 | 49 | 0 |
| 1425 | 71,43,128,155,173 | 0 | 60 | 0 |
| 1431 | C16H30-O4,2,2,4trim1,3C5dioldiisobutyraat | 0 | 0 | 17 |
| 1608 | 173,201,simazine | 234 | 0 | 0 |
| 1632 | 200,215,atrazine | 56 | 126 | 130 |
| 1722 | I.S. | 100 | 100 | 100 |
| 1837 | diC4ftalaat | 102 | 104 | 79 |
| 1977 | diC4ftalaat | 38 | 0 | 73 |
| | | 1089 | 1684 | 800 |

| pH 2 | G R O N I N G E N GWG | RUW | HALF | REIN |
|---|---|---|---|---|
| SPNR | SPECTRUM OF NAAM | 1280zs | 1281zs | 1282zs |
| 20 | 45,61,43,59,76,84,104 f=104 | 327 | 138 | 160 |
| 30 | 43,41,69 | 0 | 0 | 33 |
| 31 | 43,87,116 f=116 | 99 | 53 | 67 |
| 50 | 45,43,75 f=103 | 0 | 0 | 68 |
| 51 | 45,62 urethaan ? | 203 | 115 | 140 |
| 56 | 95,96 furaancarboxyaldehyde ? | 116 | 41 | 15 |
| 56 | 59,80,81 f=81 | 59 | 45 | 55 |
| 74 | 69,99,41,39 buteenzuur E.-ester *) | 89 | 49 | 53 |
| 88 | 55,43,98,109 methylfuranon | 78 | 40 | 36 |
| 97 | 96,42,68,40 C6 H8 O cyclohexenon ?? | 52 | 0 | 0 |
| 102 | 55,83,128 f=128 C4 H7 COOH-E.-ester *) | 0 | 30 | 32 |
| 134 | 57,67,96,40 f=96 C6 H8 O | 122 | 50 | 46 |
| 136 | 73,45,57,95,122 | 147 | 0 | 0 |
| 148 | 40,39,68,59 f=98 C6 H10 O | 135 | 41 | 41 |
| 156 | 55,97,126 CHO | 0 | 0 | 20 |
| 162 | 47,103,73,75 (f=128) C4 H7 COOH-E.-ester *) | 103 | 59 | 55 |
| 170 | 83,55,128 methylbuteenzuur E.-ester *) | 96 | 49 | 50 |
| 173 | 47,61,103,89 diethoxyethanol | 0 | 39 | 0 |
| 177 | 43,60,88 3-oxobutaanzuur E.-ester *) | 182 | 105 | 111 |
| 180 | 40,68,112 | 0 | 18 | 0 |
| 193 | 122,107,121 C2-fenol ? | 0 | 27 | 27 |
| 194 | 43,71 | 90 | 45 | 50 |
| 207 | 110,109,53,methylfurancarboxaldehyde. | 176 | 56 | 40 |
| 213 | 45,57,75 f=141 CHO | 26 | 0 | 0 |
| 223 | 85,70,57,102 f=193 | 72 | 20 | 13 |
| 233 | 45,74 | 191 | 91 | 101 |
| 247 | 43,102,74 2-Me-3-oxobutaanzuur E.-ester (mw.144) * | 130 | 67 | 70 |
| 265 | 45,59,111,139 f=139 CHO | 115 | 56 | 59 |
| 279 | 42,43,45,129 f=144 | 75 | 40 | 47 |
| 283 | 110,88,55,68,99,41 | 69 | 0 | 29 |
| 296 | 69,55,82,126 f=142 C9H18O-verb.? | 146 | 56 | 51 |
| 326 | 109,124 CHO (mog.triMecyclopentanon) | 113 | 0 | 0 |
| 330 | 57,67,110,41 f=144 | 120 | 47 | 41 |
| 334 | 91,105,120 C3-benzeen | 64 | 0 | 26 |
| 342 | 43,57,97,127 f=144 | 82 | 39 | 31 |
| 347 | 82,56,69,140 triMecyclohexanon | 64 | 46 | 38 |
| 356 | 43,99,129 4-oxopentaanzuur E.-ester (mw.144) *) | 313 | 121 | 117 |
| 379 | 133,115,43,88 propaandizuur di-E.-ester *) | 573 | 258 | 294 |
| 402 | 83,55,210 joodcyclohexaan | 0 | 68 | 88 |
| 407 | 71,99,43,129 f=144 C4 H7 O COOH-E.-ester *) | 154 | 54 | 46 |
| 427 | 47,75,103 diethoxyethaanzuur E.-ester ? *) | 0 | 77 | 82 |
| 429 | 39,68,53,98,140 CHO | 343 | 58 | 0 |
| 438 | 68,39,138 terpeen ? | 216 | 77 | 0 |
| 440 | 74,129 f=174 | 0 | 0 | 71 |
| 444 | 105,77,57 | 52 | 0 | 0 |
| 461 | 43,61,117,89,145 triEmethoxysilaan | 119 | 78 | 89 |
| 476 | 82,54,39 triMecy.hexenon ?? | 201 | 94 | 0 |
| 488 | 82,138 trimethylcyclohexenon | 60 | 31 | 22 |
| 516 | 68,96,152 triMecyclohexeendion(mw152) | 165 | 93 | 83 |
| 530 | 67,109,95,137,152 terpenoide ?? | 64 | 0 | 0 |
| 536 | 101,129 alif.dicarb.zuur di-E.-ester ? *) | 97 | 48 | 44 |
| 542 | 47,75,103 alkoxysilaan ? | 85 | 55 | 61 |
| 547 | 56,83,107,122,139 f=154 terpenoide | 63 | 37 | 37 |
| 558 | 82,54,112 f=152 terpenoide | 145 | 47 | 34 |
| 567 | 109,99,53,154 f=154 terpenoide | 92 | 26 | 28 |
| 570 | 134,133,105,119 ethylbenzaldehyde | 154 | 37 | 26 |
| 575 | 103,71,145,168 diethoxy-alkaan | 83 | 55 | 60 |
| 599 | 133,134,105,91 ethylbenzaldehyde | 159 | 39 | 32 |
| 615 | 127,99,55 buteendicarbz.di-E.-ester *) | 244 | 77 | 88 |
| 655 | 115,143,87 pentaandicarb.zuur di-E.-ester *) | 80 | 33 | 21 |
| 659 | 43,88,55,127 carbonzuur E.-ester *) | 76 | 26 | 21 |
| 661 | 43,115 CHO | 0 | 31 | 28 |
| 679 | 120,41,135,96 | 52 | 24 | 0 |
| 686 | 139,67,53,96 ethyl,methyl-pyrrooldion C7H9O2N | 128 | 80 | 65 |
| 703 | 113,69,141,168 C8 H8 O3 | 52 | 19 | 22 |
| 729 | 66,109,137,182 f=182 C9 H10 O3 | 74 | 31 | 28 |
| 742 | 43,131,85 f=168 C8 H8 O3 | 0 | 21 | 17 |
| 754 | 109,43,133,182 f=182 C9 H10 O3 | 0 | 0 | 14 |
| 766 | 71,117,43,89 hydroxybutaandizuur di-E.-ester ? *) | 171 | 66 | 48 |
| 769 | 43,133,99,105,148 | 0 | 0 | 28 |
| 785 | 85 (klein:57,136) | 44 | 16 | 17 |
| 796 | 143,115,114,87 di-E.-ester pentaandizuur *) | 95 | 36 | 29 |
| 804 | 100,43,109,131 | 88 | 32 | 32 |
| 810 | 110,119,43 | 86 | 34 | 37 |

| | | | | |
|---|---|---|---|---|
| 817 | 104,76,50,148 ftaalzuuranhydride | 93 | 0 | 0 |
| 819 | 151,180 C12 H20 O ? | 0 | 27 | 23 |
| 844 | (99),133,164 ethyltoluaat *) | 48 | 21 | 22 |
| 863 | 88,101 E.-ester C9-carb.zuur *) | 0 | 16 | 0 |
| 870 | 150,135,107,77 hydroxyMe.acetofenon of C4-fenol | 86 | 23 | 0 |
| 880 | 121,136,122,137 C?-fenol ? | 66 | 57 | 55 |
| 884 | 86,140,68,113 | 146 | 0 | 43 |
| 898 | 85,157,113,148,180 | 39 | 0 | 0 |
| 901 | (67),122,137 acetyl-dimethyl pyrrool C8H11 ON | 0 | 0 | 29 |
| 904 | 67,95,43,111,128,145 | 114 | 30 | 29 |
| 918 | 105,43,94,129,178 | 45 | 16 | 13 |
| 925 | 154,98,69,111 terpenoide | 65 | 0 | 19 |
| 939 | 83,125,96,55 | 66 | 0 | 21 |
| 947 | 121,164,136,91 f=164 arom. | 0 | 32 | 0 |
| 950 | 43,112,126,(164) | 60 | 32 | 23 |
| 957 | 101,129,55,73 dicarb.zuur di-E.-ester *) | 136 | 49 | 42 |
| 963 | 123,109,67,96,55 | 48 | 0 | 0 |
| 973 | 114,115,68 | 63 | 22 | 26 |
| 988 | 85,133,74,105 | 72 | 29 | 34 |
| 995 | 43,117,71,141 | 81 | 21 | 0 |
| 1002 | 43,128,55,174 f=174 | 99 | 44 | 42 |
| 1012 | 45,88,90,99,118,162 | 70 | 32 | 29 |
| 1023 | 131,110,55,154 | 70 | 0 | 0 |
| 1027 | 133,(100,154) | 63 | 28 | 28 |
| 1044 | 126,153,53 f=153 | 87 | 33 | 31 |
| 1053 | 111,168,112,98,167 | 94 | 38 | 35 |
| 1071 | 108,147,99 | 63 | 29 | 19 |
| 1079 | 84,116 f=193 CHO | 73 | 47 | 38 |
| 1115 | 108,153,125,97 | 46 | 0 | 17 |
| 1136 | 123,168,210 f=210 | 67 | 34 | 30 |
| 1157 | 125,150,97 f=212 | 0 | 20 | 0 |
| 1163 | 123,131,105,174 f=210 | 44 | 21 | 22 |
| 1193 | 97,43,69,110,125 | 97 | 33 | 38 |
| 1203 | 176,104 4,7-diMe-1,3-isobenzofuraandion | 97 | 37 | 40 |
| 1212 | 114,139,142,185,188 f=188 | 95 | 49 | 45 |
| 1218 | 173,127,128,99 ethaantricarboxylaat tri-E.-ester * | 70 | 30 | 32 |
| 1240 | 101,129 f=185 dicarb.z. di-E.-ester *) | 96 | 48 | 48 |
| 1244 | 167,166,139 carbazool ? (base) | 118 | 51 | 43 |
| 1258 | 151,166,123 tert.butyl-1,2-benzeendiol | 0 | 0 | 59 |
| 1261 | 137,151,144 | 74 | 32 | 0 |
| 1269 | 111,121,180,155 | 86 | 38 | 29 |
| 1276 | 123 (klein:43,169,240) f=240 | 64 | 33 | 20 |
| 1313 | 107,180,132,77 | 76 | 32 | 35 |
| 1329 | 111,91,67,135,181 | 53 | 31 | 34 |
| 1332 | 125,53,151,180 | 119 | 49 | 45 |
| 1348 | 151,110,43 | 53 | 30 | 30 |
| 1367 | 135 (klein:120,77,91,192) | 55 | 40 | 58 |
| 1374 | 151,196 4-hydr-3-meth-E.-benzoaat *) | 86 | 27 | 20 |
| 1382 | 149,223 di C4-ftalaat | 66 | 19 | 13 |
| 1393 | 120,155,211 | 40 | 16 | 13 |
| 1405 | 101,111,129 f=263 | 63 | 23 | 0 |
| 1415 | 141,142,215,113,189 | 67 | 0 | 0 |
| 1422 | 169,142,242,171 chl.toloxyE.propionaat(=mecoprop?) | 87 | 53 | 0 |
| 1428 | 88,101 ester C12-carb.zuur *) | 88 | 29 | 25 |
| 1436 | 121,71,43,147,164,173 | 82 | 32 | 28 |
| 1464 | 103,47,75 poly-ether | 0 | 32 | 31 |
| 1469 | 137(klein:210,121) | 76 | 23 | 21 |
| 1487 | 107,120,194 hydroxyfenylpropionzuur E.-ester *) | 78 | 24 | 0 |
| 1510 | 165,137,67,166 | 323 | 154 | 151 |
| 1529 | 103,47,75 poly-ether | 0 | 16 | 28 |
| 1540 | 88,101 E.-ester C13-carb.zuur *) | 33 | 0 | 0 |
| 1561 | 167,168,112 | 52 | 37 | 37 |
| 1592 | 152,43,139,111,123,153 | 84 | 28 | 0 |
| 1611 | 67,68,54,82,96 cyclisch CHO? | 114 | 0 | 0 |
| 1642 | 195,121,268 f=268 fenoxyzuur ? | 69 | 30 | 29 |
| 1652 | 137,150,224 f=224 arom. | 160 | 38 | 0 |
| 1708 | 88,101,(mw.256) ethylester C14-zuur *) | 174 | 0 | 0 |
| 1727 | 55,122,105 | 78 | 0 | 0 |
| 1742 | I.S. | 100 | 100 | 100 |
| 1766 | 88,101(mw256) ethylester C14-zuur *) | 315 | 39 | 51 |
| 1778 | 181,226 | 53 | 30 | 0 |
| 1829 | 88,55,67(mw.278??) | 106 | 0 | 0 |
| 1860 | 68,55,41,82,95 | 212 | 0 | 0 |
| 1868 | 88,101(mw270) ethylester C15-zuur *) | 256 | 41 | 0 |
| 1880 | 88,101 (mw270) ethylester C15-zuur *) | 274 | 0 | 0 |
| 1897 | 81,68,57,95 f=278 | 146 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| 1898 | 70,41,194,96 | 0 | 0 | 50 |
| 1911 | 222,177,150 arom. zuur ? | 131 | 62 | 50 |
| 1920 | 88,101 alif.carbz (C15?) E.-ester *) | 0 | 55 | 51 |
| 1925 | 82,81,57,68,95 f=278 | 267 | 0 | 0 |
| 1929 | 221,145,43,91,280 | 0 | 0 | 53 |
| 1936 | 145,219 | 0 | 63 | 0 |
| 1958 | 82,95,57 f=278 | 79 | 0 | 0 |
| 1973 | 249,147 | 72 | 68 | 71 |
| 1986 | 133,220,149,91,294 | 72 | 64 | 69 |
| 1959 | 79,93,55 | 91 | 0 | 0 |
| 2013 | 41,79,80,42,91 f=278 | 97 | 0 | 0 |
| 2020 | 88,101 (mw.284) ethylester C16-zuur *) | 114 | 0 | 0 |
| 2040 | 55,41,69,88,282 palmetoliezuur E.-ester *) | 977 | 86 | 0 |
| 2053 | 55,41,69,88 onverz. C16 zuur E.-ester *) | 166 | 0 | 0 |
| 2072 | 88,101,284 palmitinezuur E.-ester *) | 649 | 120 | 135 |
| 2084 | 221,148,122 | 0 | 0 | 95 |
| 2165 | 88,101 (mw.298) ethylester C17-zuur *) | 67 | 0 | 0 |
| 2178 | 88,101 (mw.298) ethylester C17-zuur *) | 70 | 0 | 0 |
| 2264 | 99 (klein:236,252) | 92 | 101 | 0 |
| 2303 | 67,81,55,95,41 f=308 C18-dubbel onverz. zuur *) | 109 | 0 | 0 |
| 2309 | 79,67,95,55,41,108 f=306 linoleenzuur E.-ester *) | 170 | 0 | 0 |
| 2315 | 55,41,69,88,265 f=306 CH of CHO | 211 | 102 | 0 |
| 2323 | 55,69,41,88,101,(264,265) C18 zuur E.-ester *) | 257 | 0 | 0 |
| 2353 | 88,101 (mw.312) ethylester C18-zuur *) | 211 | 104 | 0 |
| 2516 | 79,67,55,93,105 C20-onverz. zuur *) | 59 | 0 | 0 |
| 2610 | 88,101 (mw.340) ethylester C20-zuur *) | 83 | 0 | 0 |
| 2848 | 88,101 (mw.368) ethylester C22-zuur *) | 86 | 0 | 0 |
| 3068 | 88,101 (mw.396) ethylester C25-zuur *) | 100 | 0 | 0 |
| 3092 | 41,43,81,93,215,370 | 67 | 0 | 0 |
| 3198 | 57,41,368,147 (mw.412?) | 199 | 0 | 0 |
| 3273 | 88,101 (mw.424) ethylester C27-zuur *) | 67 | 0 | 0 |
| 3345 | 55,81,255,394 | 72 | 0 | 0 |
| 3412 | 396,147 | 85 | 0 | 0 |
| 3498 | 88,101 ethylester C29-zuur *) | 36 | 0 | 0 |
| | | 18761 | 6098 | 5558 |

# 5 BIJLAGE E RESULTATEN AMESTEST XAD-ISOLATEN

In deze bijlage zijn de resultaten van de Amestesten weergegeven, zoals uitgevoerd in de XAD-isolaten bij beide pH's met de stammen TA98 en TA100 met en zonder toevoeging van de S9-mix. De parameters voor de XAD-isolaten bij pH=7 zijn met "X7.." aangegeven, die voor pH=2 met "X2..". De waarden zijn uitgedrukt als rev/l·eq.
Als eerste is de datum van monsterneming vermeld.

## 5.1 Leiduin

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880516 | 880516 | 880516 |
| X7 TA98 - S9 | 105 | 0 | 25 |
| X7 TA98 + S9 | 250 | 25 | 0 |
| X7 TA100 - S9 | 0 | 0 | 0 |
| X7 TA100 + S9 | 92 | 0 | 0 |
| X2 TA98 - S9 | 82 | 17 | 0 |
| X2 TA98 + S9 | 98 | 0 | 22 |
| X2 TA100 - S9 | 0 | 0 | 0 |
| X2 TA100 + S9 | 48 | 0 | 0 |

## 5.2 Scheveningen

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880606 | 881012 | 881012 |
| X7 TA98 - S9 | 41 | 0 | 0 |
| X7 TA98 + S9 | 40 | 15 | 0 |
| X7 TA100 - S9 | 66 | 0 | 0 |
| X7 TA100 + S9 | 48 | 0 | 0 |
| X2 TA98 - S9 | 38 | 16 | 0 |
| X2 TA98 + S9 | 32 | 20 | 15 |
| X2 TA100 - S9 | 95 | 0 | 0 |
| X2 TA100 + S9 | 40 | 0 | 0 |

## 5.3 Ouddorp

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 881019 | 881019 | 880704 |
| X7 TA98 - S9 | 64 | 0 | 0 |
| X7 TA98 + S9 | 325 | 35 | 0 |
| X7 TA100 - S9 | 0 | 0 | 0 |
| X7 TA100 + S9 | 102 | 0 | 0 |
| X2 TA98 - S9 | 55 | 0 | 0 |
| X2 TA98 + S9 | 92 | 0 | 12 |
| X2 TA100 - S9 | 58 | 0 | 0 |
| X2 TA100 + S9 | 0 | 0 | 0 |

## 5.4 Enschede

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880627 | 880627 | 880627 |
| X7 TA98 - S9 | 0 | 0 | 38 |
| X7 TA98 + S9 | 48 | 24 | 0 |
| X7 TA100 - S9 | 0 | 0 | 182 |
| X7 TA100 + S9 | 0 | 0 | 0 |
| X2 TA98 - S9 | 40 | 18 | 49 |
| X2 TA98 + S9 | 0 | 0 | 26 |
| X2 TA100 - S9 | 38 | 0 | 140 |
| X2 TA100 + S9 | 0 | 0 | 48 |

## 5.5 Weesperkarspel

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880620 | 880620 | 880620 |
| X7 TA98 - S9 | 0 | 11 | 11 |
| X7 TA98 + S9 | 28 | 23 | 16 |
| X7 TA100 - S9 | 0 | 0 | 0 |
| X7 TA100 + S9 | 0 | 0 | 0 |
| X2 TA98 - S9 | 0 | 10 | 0 |
| X2 TA98 + S9 | 0 | 0 | 15 |
| X2 TA100 - S9 | 0 | 0 | 0 |
| X2 TA100 + S9 | 0 | 0 | 0 |

## 5.6 Kralingen

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880531 | 880531 | 880531 |
| X7 TA98 - S9 | 45 | 15 | 26 |
| X7 TA98 + S9 | 35 | 13 | 0 |
| X7 TA100 - S9 | 40 | 0 | 102 |
| X7 TA100 + S9 | 0 | 0 | 0 |
| X2 TA98 - S9 | 58 | 0 | 26 |
| X2 TA98 + S9 | 40 | 0 | 0 |
| X2 TA100 - S9 | 127 | 0 | 145 |
| X2 TA100 + S9 | 0 | 0 | 0 |

## 5.7 Andijk

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880929 | 880929 | 880929 |
| X7 TA98 - S9 | 0 | 100 | 0 |
| X7 TA98 + S9 | 75 | 60 | 0 |
| X7 TA100 - S9 | 0 | 510 | 0 |
| X7 TA100 + S9 | 0 | 102 | 0 |
| X2 TA98 - S9 | 22 | 112 | 0 |
| X2 TA98 + S9 | 0 | 56 | 0 |
| X2 TA100 - S9 | 0 | 554 | 50 |
| X2 TA100 + S9 | 0 | 222 | 0 |

## 5.8 Groningen

| parameter | ruw | half | rein |
|---|---|---|---|
| dd | 880921 | 880921 | 880921 |
| X7 TA98 - S9 | 14 | 0 | 0 |
| X7 TA98 + S9 | 21 | 0 | 0 |
| X7 TA100 - S9 | 0 | 0 | 0 |
| X7 TA100 + S9 | 0 | 0 | 0 |
| X2 TA98 - S9 | 0 | 14 | 20 |
| X2 TA98 + S9 | 0 | 0 | 0 |
| X2 TA100 - S9 | 0 | 0 | 0 |
| X2 TA100 + S9 | 0 | 0 | 0 |