## Cosmetics Europe compilation of historical serious eye damage/eye irritation in vivo data analysed by drivers of classification to support the selection of chemicals for development and evaluation of alternative methods/strategies: the Draize eye test Reference Database (DRD)

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## Supplementary Material 1 (Archives of Toxicology)

$\underset{\text { Cosmetics Europe }}{\substack{\text { Cost } \\ \text { Draize eye test Reference Database（DRD）} \\ \text { Barroso et } a l \\ \text { 2016 }}}$

| Sudy | Test Chemical Name | casan | Orgaic functional frous | $\begin{gathered} \text { Physical } \\ \text { Form as } \\ \text { tested } \end{gathered}$ | $\begin{array}{\|c} \hline \begin{array}{l} \text { Physical Form } \\ \text { Confimation } \\ \text { e.f.by by son } \end{array} \\ (Y / N) \end{array}$ | Data | Commercial | $\underset{\substack{\text { Avalalale } \\ \text { purity }}}{ }$ | Numberof fsulies | （ uns ofs | Severity |  |  |  | Speeific obserations |  | Commens | （ ShouldNot ei <br> Used |
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|  |  |  |  |  |  |  |  |  |  |  | cutoftratues | ${ }_{\substack{\text { Number of } \\ \text { animals }}}^{\substack{\text { a }}}$ | cutoft time | $\underbrace{\text { a }}_{\substack{\text { Number of } \\ \text { animals }}}$ | $\begin{aligned} & \text { CO = } 4 \text { or other } \\ & \text { observations } \end{aligned}$ | $\begin{gathered} \text { Number of } \\ \text { animals } \end{gathered}$ |  |  |
| 1 |  | 20．57 | creme | ， | r | zurr | semeneme | mex | ${ }^{101}$ | ${ }^{\text {ar1 }}$ | comens | 3 | Unamem |  |  |  | smanemmadems |  |
| $=$ | Seemmemomomomex | $3{ }^{351002}$ |  | ， | ， | crac | ${ }_{\text {comsencte }}$ | ${ }^{38}$ | ${ }^{\text {2ad }}$ | ${ }_{\text {ar1 }}$ | ${ }_{\text {comen } 23}$ | ${ }_{2 / 3}$ | monom |  | ${ }_{\text {cos }}$ | 3／3 | and |  |
| ， | wamblomentacose | ${ }^{2039}$ | and | ᄃ | ＊ | мсатм | smemath | sam | ${ }^{201}$ | ${ }^{\text {cr1 }}$ |  | \％6，46 |  |  | ${ }^{0.4}$ | 56 |  |  |
| ． |  | 22655 | mamem | ． | $\cdots$ | месамх | Noterex | 9x\％ | ${ }^{101}$ | ${ }^{\text {ant }}$ | comementinem 15 | 21：272 | unamem |  | cos 4 | 22 |  |  |
| s | raterame | 12038 |  | ， | $\checkmark$ | troc | smmatant | \％${ }^{3}$ | ${ }^{201}$ | ${ }^{\text {arr }}$ | \％${ }^{3}$ | 3 | copasal | $1 / 4$ |  |  | 为 |  |
| － | Sodementerame | 313，33 | crememe | ， | $\cdots$ | месамm | Scmenemat | ${ }_{58}$ | 1.12 | ${ }^{\text {corr }}$ | comem ${ }^{\text {a }}$ | $2 / 2$ | ${ }_{\text {coessor }}$ | $2 / 2$ | cos 4 | 22 |  |  |
| ， | Smomememean | 20038 | netaon | ． | ＊ | месам | smemath | 2395\％ | ${ }^{201}$ | ${ }^{\text {ar1 }}$ | ${ }_{\text {comen }} 3$ | ${ }_{4} / 6$ |  | $5_{56,56}$ | cos4 | 5 |  |  |
| － | hanolamine（50\％） | $2{ }^{10378}$ | Hatase | $\checkmark$ | － | weatm | smantant | 2035 | ${ }^{201}$ | $\mathrm{crar}_{1}$ | ${ }^{\text {comenem }} 3$ | \％ | coesesor：coiesesox | \％6\％96 | co．4 | ${ }^{6}$ |  |  |
| － | hanolamine（25\％） | \％ 38 |  | $\cdots$ | ＊ | weatum | smmentan | 2s58 | ${ }^{201}$ | ${ }^{\text {cra }}$ | ${ }^{\text {comens } 3}$ | 46 |  | ${ }^{\text {Ef／6］}}$ | cos 4 | ${ }_{6} 6$ |  |  |
| ${ }^{20}$ |  | $2{ }^{2053} 3$ |  | ． | r | месами | meax | 3 sas | ${ }^{2 a 1}$ | ${ }^{\text {ara }}$ | ${ }^{\text {comem }} 3$ | \％ | unamem |  | cos4 | ${ }_{6} 6$ | 込 |  |
| ＂ | atasestas） | 30215 | chateme | ， | $\checkmark$ | месат | smmatath | ${ }_{\text {som }}$ | ${ }^{2011}$ | $\mathrm{crar}_{1}$ | cmemen 3 | 3 | copesoryemexam | $2 / 3$ | cos4 | 3 |  |  |
| ${ }^{2}$ |  | ${ }^{2 s s 5} 517$ | Henor | ＇ | ＊ | месами | scmatath | ${ }_{36}$ | ${ }^{201}$ | $\mathrm{crar}^{2}$ | comens 3 | \％ | coesor enteres） | ${ }_{6}$ | cos 4 | ${ }^{6}$ |  |  |
| ${ }^{13}$ | meneraral | ${ }^{12.864}$ | nowne | ， | $\checkmark$ | ${ }_{\text {crore }}$ | smmenctat | max | ${ }^{101}$ | $\mathrm{crar}^{1}$ | ${ }^{\text {comenem }} 3$ | ${ }^{23}$ | copespretetax） | wtomer | ${ }_{\text {cos }}$ | 3 |  |  |
| ${ }^{4}$ |  | ${ }^{2323}$ |  |  | ． | wearm | smanemat | now | ${ }^{101}$ | ${ }^{\text {cri }}$ |  | \％6，96 |  |  | co．s | ${ }^{6}$ |  |  |
| ${ }^{15}$ |  | ， 6 cose 32 | ＊／ |  | ＊ | wearm | uname | Unamam | ${ }^{20} 1$ | ${ }^{\text {ar }}$ | ${ }^{\text {comen }} 3$ | ${ }_{4} / 6$ |  | ceme | cos 4 | ${ }_{56}$ |  |  |
| ${ }^{16}$ | konium chloride（10\％ | ${ }^{24}$ | mammmen |  | ＊ | єrıo | smanemat | 393 | ${ }^{201}$ | ${ }^{0.1}$ | ${ }_{\text {conema }}$ 3，memen 15 | $3_{3 / 3,3}$ |  | ${ }_{3 / 3,3323}$ | cos 4 | 3 |  |  |
| ${ }^{17}$ |  | ${ }^{212 s 50}$ |  | ，theabenemest | ＊ | ws | ssmancan | $3 \times$ | ${ }^{201}$ | ${ }^{\text {an1 }}$ | ${ }^{\text {comem }} 3$ | ${ }^{23}$ | copespreterex） | wtemr 2 s | cos4 | ${ }^{2 / 3}$ |  |  |
| ${ }^{18}$ | Oomemomemesay | 3876 | 为 | ctat | ＊ | мсалим | masen | ${ }_{9 \times}$ | ${ }^{\text {a }}$ a 1 | cri | mas | ${ }^{2 / 3}$ |  | ${ }^{\text {atamer }}$ \％ | cos4 | $3 / 3$ |  |  |
| ${ }^{19}$ |  | ${ }^{20} 232$ |  | s | $\cdots$ | месам | spmexamat | ${ }_{\text {358 }}$ | ${ }^{1012}$ | $\mathrm{crar}^{2}$ | comens 3 | \％ | copesoz（extaxay | \％ | cos4 | ${ }_{6}$ |  |  |
| ${ }^{20}$ | 2enterasobememees | Seatic | Commenes | s | $\checkmark$ | ${ }_{\text {zerer }}$ | semenemat | sm | ${ }^{2013}$ | $\mathrm{car}^{\text {ar }}$ | ${ }_{\text {comene } 3}$ | ${ }_{3}^{3 /}$ | unhame |  | cos 4 | ${ }_{3}^{3 /}$ |  |  |
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| ${ }^{22}$ |  | $2{ }^{208985}$ |  | s | － | zagr | ssameatamamesy | ${ }_{38}$ | ${ }^{2011}$ | $\mathrm{corr}^{1}$ | comenes | ${ }^{23}$ | uname |  | cos | ${ }^{23}$ |  |  |
| ${ }^{3}$ |  | 20.659 |  | 5 | － | месамм | strasemen | 9\％ | ${ }_{2}{ }^{201}$ | ${ }_{\text {arr }}$ | Comemenatmen 15 | \％6，\％ | Unamem |  | cos 4 | ${ }^{2 / 6}$ |  |  |
| ${ }^{24}$ | Sonatesomemesas | ${ }^{238587}$ |  | s | ， | $z^{\text {zuer }}$ | ssmmatast | ${ }^{\text {amx }}$ | ${ }^{201} 1$ | ${ }^{\text {cra }}$ | ${ }^{\text {comem }}$ 2 3 | ${ }^{3 \beta}$ | unamem |  | cos4 | ${ }^{2 / 3}$ |  |  |
| ${ }^{5}$ |  | 304714 |  | s | $\cdot$ | weatm | Stumemem | asas | ${ }_{10 \text { a }}^{1}$ | $\mathrm{car}_{1}$ | $\operatorname{comem}^{2}$ | ${ }_{3 /}$ | coemozitateme | $\because$ | cos 4 | 3 |  |  |


| Stuay $\begin{aligned} & \text { Sumber } \\ & \text { number }\end{aligned}$ | Test Chemical Name | casan | Organic functional Groups | $\begin{array}{\|l\|l\|} \hline \begin{array}{c} \text { Physical } \\ \text { formas } \\ \text { tested } \end{array} \end{array}$ |  | （inaData <br> Soure | CommercialSurre | $\underset{\substack{\text { avalale } \\ \text { Puity }}}{ }$ | Number f fsudies |  | Severity |  | Drivers of ClassificationPersistence |  | Speeifico oberevaions |  | Comment |  |
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|  |  |  |  |  |  |  |  |  |  |  | Cutoff values | $\underbrace{\text { Number of }}$ animals | cutoft time | ${ }_{\substack{\text { Numberof } \\ \text { animats }}}^{\substack{\text { a }}}$ | $\underbrace{}_{\substack{\text { co＝} 0 \text { a oroter } \\ \text { obsevations }}}$ | Numberot |  |  |
| ${ }^{26}$ | Deseort | ${ }^{293386}$ |  | s | r | trox | smmatath | ${ }_{\text {sex }}$ | ${ }^{1012}$ | $\mathrm{car}^{1}$ | ${ }_{\text {comen } 3}$ | $2 / 3$ | Unamam |  |  |  |  |  |
| ${ }^{27}$ | （1202］ | ${ }^{213} 386$ |  | 5 | ＊ | ws | smentach | ${ }^{\text {sx }}$ | ${ }^{201}$ | cri | ${ }^{\text {comenens }}$ | $2 / 3$ |  |  | cos4 | $2 / 3$ |  |  |
| ${ }^{28}$ |  | 20，6es | ammement | s | ， | мсали | smmatach | 2018 | ${ }_{10 \text { ar }}$ | $\mathrm{arar}^{1}$ | comem ${ }^{\text {a }}$ | 3 | comene metamas） | 3 | cos 9 | ${ }_{3 / 3}$ |  |  |
| ${ }^{23}$ | Sorsmeatal | $\operatorname{cosen} 272^{2}$ |  | s | $\checkmark$ | ${ }_{\text {enctane }}$ | soperear | s，18 | ${ }^{201}$ | ${ }^{\text {cor }}$ | ${ }^{\text {comene } 3}$ | ${ }^{3 / 3}$ |  | ， | cos 4 | ${ }_{3}$ |  | ， |
| ${ }^{30}$ | mase | ${ }^{233324}$ |  | s | ＊ | troc | smentath | som | ${ }^{1012}$ | ${ }^{\text {arr }}$ | comen 3， 3 menem 15 | ${ }_{33} 23$ | resmercomesor | ${ }^{\text {aterer }}$ \％ | cos 4 | ${ }^{2 / 3}$ |  |  |
| ${ }^{3}$ | Pemememenalatar | ${ }^{\text {sa33 }}$ | Amemememe mam | s | － | ztroc | stamath | sameatase | ${ }^{2012}$ | ${ }^{\text {ars }}$ | ${ }_{\text {comen }} 3$ | $3 / 3$ |  | ${ }_{3}^{3 /}$ | ${ }_{\text {cos }}$ | ${ }^{3 /}$ |  |  |
| ${ }^{3}$ |  | ${ }^{\text {8333 }}$ |  | s | ＊ | ws | smomath | menneagese | 2012 | ${ }^{\text {ara }}$ | comem ${ }^{\text {a }}$ | 23 | copeszaseteax） | ${ }_{3 / 3}$ | cos4 | ${ }_{3}$ | 为 |  |
| ${ }^{3}$ |  | Natame | van | Usamem | ＊ | wearm | uname | uname | ${ }^{201}$ | ${ }^{\text {ars }}$ | $\mathrm{cmamen}^{3}$ | \％ | Uname |  | cos 4 | ${ }_{56}$ |  |  |
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| ${ }^{3}$ |  | 2317，${ }^{\text {nem }}$ | chater | $\stackrel{ }{ }$ | ＊ | wearm | Smmatat | wemesas sose | ${ }^{201}$ | ${ }_{\text {ar }}$ | ＂mmen 15 | \％ | copesor（extera） | ${ }^{\text {anematse }}$ | ${ }_{\text {cos }}$ | ${ }^{5 / 6}$ |  |  |
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| ${ }^{38}$ |  |  | wn | $\stackrel{ }{ }$ | ＊ | wearm | ，minemen |  | ${ }^{201}$ | ${ }^{\text {cor }}$ | ＂mmen 15 | ${ }^{46}$ | Unomom |  | cos 4 | 276 | 1 |  |
| ${ }^{3}$ | Samese | Sa42 | ${ }^{\text {amomammen }}$ | deat | ＊ | trox | smantan | 305 | ${ }^{201}$ | ${ }^{\text {cat }}$ | ＂mmen 15 | 44 |  |  | cos 4 | ${ }^{1 / 4}$ |  |  |
| ${ }^{\circ}$ | mbomemam |  |  |  | ． | trroc | smmatath | ${ }^{\text {ax }}$ | \％1 | ${ }^{\text {cra }}$ | mens 1. comenem | \％6，46 | O2t Comememit | $\underbrace{2 \times 2}$ | cos 4 | ${ }^{26}$ |  |  |
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| ${ }^{4}$ |  | 380\％s3 | wn | s | ＊ | месати | uname | uname | ${ }^{201}$ | ar1 | Remen 15 | 3／3 | unbeam |  |  |  |  | ， |
| ${ }^{*}$ | Leameratar ${ }^{\text {a }}$ | ${ }^{20056}$ |  | ， | ， | єтос | smmatant | ${ }^{\text {asx }}$ | ${ }^{2012}$ | ${ }_{\text {cir }}$ | ＂mmens 15 | ${ }_{23}$ |  | ${ }_{3}^{3}$ | cos 4 | ${ }_{3 / 3}$ |  |  |
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| ${ }_{4}$ | mameme | 1 26643 | ${ }^{\text {an }}$ | $\checkmark$ | ＊ | wearm | smantach | 20x | ${ }^{201}$ | ${ }^{\text {cor }}$ | coso． | ${ }^{-(\mathrm{Com} 2 \mathrm{z}}$ | coesozoletatay | ${ }^{1 / 6}$ | cos4 | 2／6 |  | $\times$ |
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| ${ }^{48}$ |  | ${ }^{40197}$ | cetem） | ， | ， | wearm | semmamen | 23978 | ${ }^{2011}$ | ant | ${ }_{\text {cmamen } 21}$ | ${ }_{3} 3$ | comenoz itereax） | ${ }^{\text {aterer } 23}$ | cos4 | $2{ }^{2 / 3}$ |  |  |
| ${ }^{\circ}$ | Emandecosataean | ${ }^{\text {cosesic }}$ | ${ }_{\text {and }}^{\text {anemal }}$ | ‘ | $\checkmark$ | wearm | smmatant | ${ }^{3988}$ | ${ }^{101}$ | $\mathrm{corr}^{1}$ | ${ }^{\text {cramane } 21}$ | ${ }^{2 / 3}$ | comesor 2 etemax） | Hemer $/ 3$ | cos 4 | 23 |  |  |
| $s$ | ，diethylene triamine，epichlorohydrin， | ${ }_{\text {LSsas } 2.2}$ |  |  | $\checkmark$ | Emenemen | roperear | zox meose | ${ }^{201}$ | ${ }^{\text {cr1 }}$ |  | \％ 2,31 |  | v／2， $12,2 / 2$ |  |  |  | N／2 |
| $s$ | Emon（tas） | ${ }^{117.782}$ | $\begin{aligned} & \substack { \text { nesomen } \\ \begin{subarray}{c}{\text { nemer }{ \text { nesomen } \\ \begin{subarray} { c } { \text { nemer } } } \end{aligned}$ | $\checkmark$ | ＊ | ${ }_{\text {Enemane }}$ | ssmanath | ${ }^{303}$ | ${ }^{1013}$ | ${ }^{\text {corr }}$ |  | \％156，59\％ | coesor ipetamy | Hest／6 |  |  | Co | $\times$ |
| ${ }^{2}$ |  | ${ }^{12133837}$ | ＊／ | $\stackrel{1}{4}$ | $*$ | тито | unamem | Unemem | ${ }^{2011}$ | $\stackrel{1}{6}$ |  | 2n：3／2 |  | $2 / 2,3 / 2$ |  |  |  | $\times$ |
| $s$ |  | seasesat |  | ， | ， | enmexam | noperear | 30x memeas | ${ }^{101}$ | ant |  | \％\％，46 |  | $44,3 /{ }^{\text {a }}$ |  |  |  |  |
| 4 |  | Erasaom |  | $\stackrel{ }{ }$ | ＊ | Emutane | roperear | 3os，mames | ${ }^{101}$ | cr1 |  | \％／5，46 |  | ${ }^{34,2 / 4}$ |  |  |  |  |
| ${ }_{5}$ |  | zestsss |  | $\stackrel{ }{ }$ | ＊ | exam | roperer | F3x semeas | ${ }^{201}$ | ${ }^{\text {ani }}$ | Compenaz 2 comener 1 | \％ 14.36 |  | ${ }_{14,4 / 4}$ |  |  |  | $\times$ |
| ${ }_{5}$ | sworemen | ${ }^{2388} 83.3$ | 为 | ， | r | месатм | semencast | utame | ${ }^{201}$ | $\mathrm{car}^{2}$ | ${ }_{\text {comen } 21}$ | \％ | ${ }_{\text {coesor }}$ | ，$/ 2$ |  |  |  | $\times$ |
| s | Stamenampa | ${ }^{41715}$ | atasat | $\stackrel{1}{ }$ | $\checkmark$ | мcatm | Scmenemit | ${ }^{3988}$ | ${ }^{\text {2asf }}$ | ara |  |  | ${ }_{\text {coesor }}$ | ${ }^{2 / 6}$ |  |  | ｜en | $\times$ |


| Sudy | Test Chemical Name | cassn | Organic functional frouss | $\begin{aligned} & \text { Physical } \\ & \text { Form as } \\ & \text { tested } \end{aligned}$ |  | ${ }_{\substack{\text { Data } \\ \text { suure }}}^{\text {a }}$ | $\underset{\substack{\text { Commercial } \\ \text { Suure }}}{ }$ | $\substack{\text { Avaiable } \\ \text { Purity }}$ | Numberof Studies | $\begin{array}{\|c} \text { UN GHS } \\ \text { Classification } \end{array}$ | Severity |  | Cassifation |  | Speeific obserevaions |  | Comment | ( $\begin{gathered}\text { Should } \\ \text { Soue } \\ \text { Sused } \\ \text { Use }\end{gathered}$ |
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|  |  |  |  |  |  |  |  |  |  |  | Cutoff values | $\substack{\text { Number of } \\ \text { animals }}$ | cutoft time | $\underbrace{\text { a }}_{\substack{\text { Numberof } \\ \text { animas }}}$ |  | ${ }_{\substack{\text { Number of } \\ \text { animals }}}$ |  |  |
| ${ }_{5}$ |  | Sosssiso | atimel | , | . | zuneame | meer | sos\% | ${ }^{10}$ | cr1 |  | 3/3,3 | comenos | ${ }_{1 / 3}$ |  |  |  | $\times$ |
| $s$ | aneseates | ${ }^{10,568}$ |  | - | $\checkmark$ | месам | Smmetern | mas | ${ }^{201}$ | ${ }^{\text {cir }}$ | Conimem 2 | 5\% |  |  |  |  |  | $\times$ |
| ${ }^{\circ}$ | wemememe | ${ }^{2735}$ | ${ }_{\text {a }}^{\text {atamel }}$ | . | $\checkmark$ | zerr | Smanemat | ${ }_{\text {sex }}$ | ${ }^{201}$ | $\mathrm{arar}^{\text {ar }}$ |  | $12,3 / 2$ |  | /2 | cos 4 | 3/2 |  | $\times$ |
| ${ }^{\circ}$ |  | sas, 3 3 3 |  | , | , | zunctame | roperear | 27 smax | ${ }^{\text {a/ar }}$ | $\mathrm{crar}^{2}$ |  | \%4,94 |  | 26, /1/ |  |  |  | $\times$ |
| ${ }^{2}$ | n coco amphoacetate ( $-30 \%$, aqueous) | ${ }^{320}$ | $\begin{aligned} & \text { Alcohol\| } \\ & \text { Aliphatic Amine, tertiary\| } \\ & \text { Carboxamide } \\ & \text { Carboxylic acid } \end{aligned}$ | , | * | enticame | mear | 20x aemes | ${ }^{1011}$ | $\mathrm{crar}_{1}$ | (mar | ${ }_{3}$ |  | 14, $1 / 2$ |  |  |  |  |
| * |  | 59 |  | - | $\checkmark$ | месам | Unaman | untam | ${ }^{101} 1$ | ${ }^{\text {cor }}$ |  |  | coesor |  | cos 4 | 5\% |  |  |
| ${ }^{\circ}$ |  | 200ss | $\pm$ | - | $\checkmark$ | wearm | uname | untem | ${ }^{201}$ | ${ }^{\text {cra }}$ |  |  | coesor (etatas) | atemer 8 gemat | ${ }_{\text {cos }} 4$ | ${ }^{26}$ |  | , |
| ${ }^{5}$ | lammonium alkyl sulphate ( $-40 \%$, aqueous) | ${ }^{38149}$ |  | $\stackrel{ }{ }$ | , | zuncame | roperear | -asamess | ${ }^{101}$ | $\mathrm{crar}^{2}$ | ${ }^{\text {comena } 2 \text { atan menen } 2}$ | sfa |  | J/, 1/a |  |  | ont ind | $\times$ |
| ${ }_{6}$ |  | ${ }^{4.2}$ | and | (tasemenesem | $\checkmark$ | trroc | smometan | 2385 | ${ }^{101}$ | ${ }^{\text {cor }}$ | Corimeas 2 | ${ }^{3 / 4}$ |  | $y^{19,1 / 2}$ |  |  |  | * |
| $\because$ |  | Sesest2 | amin | (tamenemew | $\checkmark$ | ${ }_{\text {trex }}$ | smaneman | 238 | ${ }^{201}$ | $\mathrm{crar}^{2}$ |  | ${ }_{\text {\%6/656, }}^{6}$ |  |  | cos4 | ${ }^{1 / 6}$ |  | $\times$ |
| ${ }^{\circ 8}$ |  | soar26e | come | (tasemenesemi | * | месалм | smmenem | smx | ${ }^{1011}$ | ${ }^{\text {cra }}$ |  | 3/3,3,3/3 |  | ${ }^{\text {atereras }}$ | ${ }^{\text {cos }} 4$ | ${ }_{3 / 3}$ | 为 |  |
| ${ }^{\circ}$ |  | 30,00 | 2mament |  | * | месам | ssmatach | 30\% | ${ }^{101}$ | cr1 |  | v/32723 |  | ${ }_{3}$ | cos4 | 3/3 |  |  |
| ${ }^{2}$ | Comen | , | 2momens | , | * | ws | ssmaname | 23x | 2012 | cor |  | ${ }_{3 / 3,3 / 3 / 3}$ | copesoz ietemex) | ateart | cos 4 | 13 | Delayed effects; Persistent corneal lesions; Irreversible lesions on D 21 but scores unknown; $\mathrm{CO}=4$ on D 14 in $1 / 3 ;$ $\mathrm{CO}=3$ between D 7 and D 14 in $1 / 3 ; \mathrm{CO}=3$ on D 14 in $1 / 3 ; \mathrm{IR}=1$ on D 14 in $2 / 3 ; \mathrm{R}=0$ on $\mathrm{D14}$ in $1 / 3 ; \mathrm{CR}$ and $\mathrm{CC}=3$ on $\mathrm{D14}$ in $1 / 3 ; \mathrm{CR}$ and $\mathrm{CC}=2$ on $\mathrm{D14}$ in $2 / 3$ |  |
| ${ }^{n}$ |  | \%min |  |  | r | wearm | Smenemat | ${ }^{38}$ | ${ }^{2011}$ | cr1 |  | 38,23 | comenorimeay | \% | cos 4 | $1 / 3$ | 为 |  |
| $n$ | Dosasimbase (0as) | 20246s9 | cotamesed |  | $\checkmark$ | wearm | wemematas | ${ }^{\text {sporam}}$ | ${ }^{201}$ | cat | coso. |  | coemor [feame | 1/3 | cos4 | 1/3 | $\qquad$ | $\times$ |
| ${ }^{3}$ | Soummomesesomes | ${ }^{310732}$ | matame |  | $\checkmark$ | trroc | smmencath | 238 | ${ }^{1011}$ | cr1 | 15 | 2n:3n |  |  | cos4 | 1/2 |  | m |
| ${ }^{4}$ |  | ${ }^{512123}$ | matem |  | * | wearm | smeneme | 230 | ${ }^{2013}$ | $\mathrm{cos}^{1}$ |  | 332383, ${ }^{\text {a }}$ | comesorpetas) | ${ }^{3 / 3}$ | cos4 | ${ }_{3 / 3}$ |  | $\times$ |
| ${ }^{5}$ |  | ${ }^{512,13}$ | \%men | ${ }^{\text {a }}$ | $\checkmark$ | месат | smast | 30\% | 2013 | $\mathrm{cos}^{1}$ |  | 232313 | coesor Letasas) | atersis | ${ }_{\text {cos }}$ | 1/3 | Sush | $\times$ |
| ${ }^{6}$ | Satumummamemasam | ${ }^{5122]}$ |  |  | - | trero | smmatan | 230\% | ${ }^{101}$ | crs |  |  | ${ }_{\text {coesmon }}$ | ${ }^{216}$ |  |  | Cozem |  |
| " |  | 0,8 | 2momemen | , themenesest | $\checkmark$ | месаим | smast | 20s\% | 2013 | $\mathrm{cos}^{1}$ |  | 3/3,3/23/ | coesor (eterex) | ${ }_{3}^{3 /}$ | cos4 | ${ }_{3 / 3}$ |  |  |
| ${ }^{78}$ |  | ${ }^{20,93}$ |  | , | - | ветох | smmenth | sem | ${ }^{101}$ | cor | comens 3 inmamen 15 | , $12 / 2$ |  |  | ${ }^{\text {cos }} 4$ | 1/2 |  | ${ }^{\infty}$ |
| ${ }^{19}$ |  | 4432 | Aliphatic Amine, tertiary\| <br> Alyl\| <br> Unsaturated heterocyclic amine\| <br> Unsaturated heterocyclic fragment | s | - | mencma | noperarer | ${ }^{393}$ | ${ }^{201}$ | $\mathrm{crar}^{\text {a }}$ |  | 3/3,38,2/3 |  | ${ }^{2 \beta, 13}$ |  |  | Cosin |  |
| ${ }^{\circ}$ |  | ${ }^{2803 / 3}$ | and | s | - | ${ }_{\text {trox }}$ | ssmanan | 393* | ${ }^{101} 1$ | ${ }^{\text {can }}$ |  | \%6,96 $^{\text {c }}$ |  | V6, 18.4 .46 | ${ }_{\text {cos }}$ | ${ }^{2 / 6}$ |  | $\times$ |
| s |  | ${ }^{231346}$ | cemon | s | - | ${ }_{\text {trero }}$ | ${ }^{10}$ | som | ${ }^{101}$ | ${ }^{\text {cri }}$ |  | ${ }_{\text {\%6, } 685496}$ |  | \%6, 865 | ${ }^{\text {cos } 4}$ | ${ }^{1 / 6}$ | $\mid$ |  |
| * | 27.0.ambemasal |  |  | s | $\checkmark$ | mitam | smmatan | ${ }^{9 \%}$ | ${ }^{201}$ | ${ }^{\text {cra }}$ |  | , ma/n, |  | v/2, 2 |  |  |  | $\times$ |
| ${ }^{3}$ |  | 12907 ${ }^{\text {a }}$ |  | , | , | comenstape | roperear | utamem | ${ }^{101}$ | ${ }^{\text {cor }}$ | ${ }_{\text {coso. }}$ |  | coeson, corpes | 14, |  |  |  | $\times$ |


| ( $\begin{aligned} & \text { sudy } \\ & \text { Number }\end{aligned}$ | Test Chemical Name | caskn | Orgaic functional frouss | $\begin{aligned} & \text { Physical } \\ & \text { Form as } \\ & \text { tested } \end{aligned}$ |  | Doata | Commercial ${ }_{\text {Soure }}$ | $\substack{\text { Avalable } \\ \text { Purity }}$ | Numberof Studies | ${ }_{\text {und }}^{\substack{\text { uschs } \\ \text { cassiction }}}$ | Severity |  |  |  | Speefificobserations |  | Commer |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | cutoffulues | $\underbrace{\text { Number of }}$ animals | cutoft time | Numberof | $\begin{aligned} & \text { CO = } 4 \text { or other } \\ & \text { observations } \end{aligned}$ | $\begin{gathered} \text { Number of } \\ \text { animals } \end{gathered}$ |  |  |
| ${ }^{*}$ | Somata 2 (2) | ${ }^{203321}$ | ${ }_{\text {a }}$ | s | * | weatm | Smmetar | ${ }_{35}$ | 201 | ${ }^{\text {cra }}$ |  |  |  |  | cos 4 | \%/6 |  |  |
| as | 2mentesesaral | asez3 |  | s | $\stackrel{\rightharpoonup}{*}$ | Enetamen | Smantath | ${ }_{\text {sex }}$ | ${ }^{201}$ | ar1 | Comemitanimemizimeme | ), |  | 2/:2/2 |  |  |  | $\times$ |
| ${ }^{6}$ |  | ${ }^{122363}$ | atemememe | 5 | - | месим | Standent | 9\% | ${ }^{201}$ | ${ }^{\text {arr }}$ | Contemer | ${ }^{2 / 3}$ | ${ }_{\text {coesor }}$ | 3/3 |  |  |  |  |
| ${ }^{\circ}$ |  | 1 sers302 |  | s | $\checkmark$ | weatm | Smanetan | 2 anx | ${ }^{101}$ | ${ }^{\text {cri }}$ | ${ }^{\text {comener }}$ | $3 / 3$ | coeson (1etax) | ${ }^{\text {aterer }}$ / | cos4 | ${ }^{3 / 3}$ |  |  |
| ${ }^{8}$ | apenonocerememere | ${ }_{313}{ }^{3} 6$ |  | s | $\checkmark$ | єтос | ${ }^{*}$ | mas | 2013 | ${ }^{\text {cr1 }}$ |  | ${ }_{3 / 3,3,3 / 3}$ |  | 33, $3 / 3 / 3$ | ${ }_{\text {cos }}$ | $3{ }_{3}$ |  |  |
| * | misaeperat | ${ }^{238324}$ |  | s | - | ws | smanemat | ${ }^{2098}$ | 2012 | ${ }_{\text {cors }}$ |  | ${ }_{31383,3 / 3}$ |  | ${ }^{\text {ateren} / 3}$ |  |  |  |  |
| \% | bureseas | 128077 | cotamesas | s | , | trex | smoment | smo | ${ }^{201}$ | ${ }^{\text {ant }}$ |  | 33,23 |  | ${ }_{3 / 3,3 / 3}$ |  |  |  |  |
| $\because$ | mimmmemometase) | Ress 2 | Amomamemema | s | * | weatm | smmentan | 293\% | ${ }^{101}$ | $\mathrm{corr}^{1}$ |  | 38,3/32/3 |  | ${ }_{3 /}$ | cos 4 | ${ }^{3 / 3}$ | Study terminated on D14; Delayed effects; $C O=4$ between D 1 and D 14 in $1 / 3(C O=3$ on D 13$) ; \mathrm{CO}=4$ between D 11 and D 14 in $1 / 3 ; C O=4$ between D 9 and D 14 in $1 / 3 ; \mathrm{IR}=0$ on D 14 in $3 / 3 ; C R=2$ on D 14 in $1 / 3 ; C R=1$ on $\mathrm{D14}$ in $2 / 3 ; C C=1$ on $\mathrm{D14}$ in $2 / 3 ; C C=0$ on D14 in $1 / 3 ;$ ASsumed $C O$ irreversible |  |
| $\cdots$ |  | ${ }^{21858939}$ |  | s | - | enemane | Comasment | sss | ${ }^{201}$ | $\mathrm{car}_{1}$ | coso. | $\cdots$ | ${ }_{\text {copen }}^{\text {on }}$ | ${ }^{1 / 4}$ |  |  |  |  |
| 3 | somen | 225837208 |  | s | $\checkmark$ | enestam | smmatath | meat | ${ }^{121} 1$ | ${ }_{\text {cra }}$ | comenerit com | $3_{3,3,3}$ | ${ }^{\text {copesorit }}$ Conemos ${ }^{\text {a }}$ | 13/3/3 |  |  | 为 | $\times$ |
| * |  | ${ }^{\text {assa }}$ | momen | s | * | wearm | smomexn |  | ${ }^{20} 1$ | ${ }^{\text {ara }}$ | comene 2 : 1 nemem 21 | E6546 |  | \%(5, 16 | ${ }_{\text {cos }}$ | ${ }^{2} 6$ |  |  |
| \% | mantenespome | ass.4 | momen | s | * | wearm | smomean | $3 \times$ | ${ }^{201}$ | ${ }^{\text {ant }}$ |  | E6, 66 |  | ${ }^{56,4} 16$ | cos 4 | 46 |  |  |
| \% | Smerara) | ${ }_{\text {ases6 }}$ | cen | s | , | ws | Smanach | ${ }_{\text {sex }}$ | ${ }^{201}$ | $\mathrm{crar}^{1}$ |  | ${ }_{3 / 3,3 / 3 / 3}$ |  |  | cos 4 | 23 |  |  |
| r | 80/20 tallow/coconut oil | nate | wa | s | - | ветос | unam | untam | ${ }^{101}$ | ${ }^{\text {and }}$ | corimene 2 | ${ }^{3 /}$ |  | 13,3/3 |  |  |  | $\times$ |
| $\%$ | maserata) | ${ }^{22760}$ | Osesatatesaid | s | * | ws | smment | ${ }^{2093}$ | ${ }^{2012}$ | ${ }^{\text {cri }}$ |  | ${ }_{3,3} 3,3,3$ |  | 1/3 | ${ }^{\text {cos }} 4$ | 1/3 |  | $\times$ |
| $\%$ | 2maserear) | ${ }^{272760}$ | Oomatapresad | s | * | trox | smometan | 3293x | 2012 | ${ }^{\text {cra }}$ |  | ${ }_{3 / 3,38,3 / 3}$ | copenotereay | anemis | cos4 | $1 / 3$ |  | $\times$ |
| ${ }^{20}$ | in perborate tetrahydrate | ${ }^{\text {nesesaray }}$ | wa | s | $\checkmark$ | trox | smmatan | 817 | ${ }^{201}$ | ${ }^{\text {car }}$ |  |  |  | 44826 | cos4 | ${ }^{26}$ |  |  |
| ${ }^{00}$ |  | ${ }^{\text {s22] }}$ | comaniceal | s | * | weatm | Smmatan | ${ }^{2935}$ | ${ }^{201}$ | ar1 |  | ${ }_{3 / 3,3}$ |  | ${ }^{\text {atarer} / 3}$ | ${ }_{\text {cos }}$ | ${ }^{3 / 3}$ |  |  |
| ${ }^{102}$ | tempesasa | S1, 19 |  | unamam | * | zerer | smonetan | Unemm | ${ }^{201} 1$ | cr1 | $c_{\text {cmener }}$ | 3/3 | copesorit conese 01 | ${ }^{13} / 3 / 3$ |  |  |  |  |
| ${ }^{138}$ | 2neeomenear | ${ }^{23253545}$ |  | Matam | " | ${ }_{\text {zaxr }}$ | unamem | unbesm | ${ }^{201}$ | ${ }^{\text {cr1 }}$ |  | ${ }_{31}^{3} 33$ |  | \%/313 |  |  |  | $\times$ |
| ${ }^{106}$ | enssive |  | */ | uname | * | месам | Unamem | unemem | ${ }^{101}$ | ${ }^{\text {ara }}$ | comemitamememinemen | $3_{3,3,323 / 3}$ | $\mathrm{cosem}_{\text {ans }}$ | $3 / 3$ | cos 4 | $1 / 3$ |  |  |
| ${ }^{\text {u5 }}$ | Weate | ${ }^{\text {unomam }}$ | */a | Unama | $\cdots$ | ${ }_{\text {zear }}$ | untam | uname | ${ }^{201}$ | ${ }_{\text {cri }}$ |  | $3 / 3,3 / 3$ |  | $3 / 3,3 / 3$ |  |  |  |  |
| ${ }^{106}$ | omoses | Stassor | ** | uname | * | ${ }_{\text {zest }}$ | uname | unemm | ${ }^{201}$ | ${ }^{\text {ara }}$ |  | यhan: 2,12 | comenoratemes) | //2 | cos4 | /2/ |  | $\times$ |
| ${ }^{107}$ | amamporemaname | ${ }^{3208543}$ | Smatime | Ustam | $*$ | ${ }_{\text {zerer }}$ | uname | untam | 2013 | ${ }^{\text {ar1 }}$ | ${ }^{\text {commanatitan men } 22}$ | 33,23 |  | ${ }_{13,13}$ | cos4 | ${ }^{1 / 3}$ |  | $\times$ |
| ${ }^{18}$ |  | $139823^{3}$ | , | ᄃ | * | ${ }^{\text {enemame }}$ | smaneme | ${ }^{200 \%}$ | ${ }^{201}$ | ${ }^{\text {cor }}$ |  | ${ }_{3 / 3,382 / 3}$ |  | ${ }_{3}^{3} 273$ |  |  |  |  |


| Sudy $\begin{aligned} & \text { Sumber } \\ & \text { Nut }\end{aligned}$ | Test Chemical Name | cas nn | Organic functional frous | $\begin{gathered} \text { Physical } \\ \text { Form as } \\ \text { tested } \end{gathered}$ | $\begin{array}{\|l\|} \hline \begin{array}{l} \text { Physical form } \\ \text { Confration } \\ \text { e.f.ry } \\ \text { (Yyson } \end{array} \\ (Y / N) \end{array}$ | ${ }_{\substack{\text { Data } \\ \text { souree }}}^{\text {a }}$ |  | $\substack{\text { Available } \\ \text { Puity }}$ | Number f Studies |  | Severity |  | $\underset{\text { cassiferion }}{\text { Pesistene }}$ |  | Speeficic obserations |  | Comments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | Cutoff valus | $\substack{\text { Number of } \\ \text { animals }}$ | cutoftime | $\substack{\text { Number of } \\ \text { animals }}$ |  | $\underbrace{\text { a }}_{\substack{\text { Numberof } \\ \text { animals }}}$ |  |  |
| ${ }^{19}$ |  |  | ontareseoup | $\stackrel{ }{ }$ | * | evencmen | ${ }^{\text {roperavar }}$ | -sox semex | ${ }^{201}$ | ${ }^{\text {ar1 }}$ | ${ }_{\text {cos. }}$ | $\cdots$ |  | ${ }^{2 / 4,2}$ |  |  |  | $\times$ |
| ${ }^{10}$ |  | ${ }^{12,762}$ | aneme | $\stackrel{ }{ }$ | * | teroc | smmatath | ${ }^{30 \%}$ | ${ }^{2013}$ | ${ }^{\text {arr }}$ |  | ${ }_{3,383,3 / 3}$ | comesor | ${ }_{3}^{3}$ |  |  |  | $\times$ |
| ${ }^{\text {m }}$ | pexatap | ${ }^{\text {asase }} 6$ |  | $\stackrel{ }{ }$ | * | месати | smmatath | ammatamasas | ${ }^{1013}$ | ${ }_{\text {cri }}$ |  | $33,3 / 3$ | Compenozic comomi | 38,23 |  |  |  |  |
| ${ }^{12}$ | max ${ }^{\text {matamax }}$ | \%o293.1 | $\begin{aligned} & \text { Alcohol\| } \\ & \text { Alkane branched with quaternary carbon\| } \\ & \text { Aryl\| } \\ & \text { Ether\| } \end{aligned}$ | $\checkmark$ | * | troc | smantun | Bosasysere | ${ }^{101}$ | ${ }^{\text {cra }}$ |  |  | Comemos | ${ }^{1 / 6}$ |  |  | Sumen | * |
| ${ }^{113}$ |  | $\begin{aligned} & \text { 58969-27-0 (original CAS * } \\ & \text { deleted and replaced by } 61789- \\ & 32-0 \text { ) } \end{aligned}$ | $\begin{aligned} & \text { Carboxplic acid ester \| } \\ & \text { Sulfonic acid } \end{aligned}$ |  | $\checkmark$ | ${ }_{\text {creroc }}$ | unama | unbeam | ${ }^{1 a 4}$ | ${ }^{\text {cra }}$ | ${ }^{\text {cramena }}$ | \% | comemon | ${ }^{1 / 6}$ |  |  |  | $\times$ |
| ${ }^{14}$ | athmemeas |  | ombenoseas | s | $\checkmark$ | teroc/zaser | smanemat | ${ }_{9 \times}$ | ${ }^{1 / 41}$ | ${ }^{\text {cra }}$ |  | ${ }_{3133}$ | Covieson: | ${ }_{18,13}$ |  |  |  | $\times$ |
| ${ }^{15}$ | ethyl-1 1 H -imidazolium chloride | sracara |  | s | * | anmenam | smanctunt | ${ }^{393}$ | 101 | ${ }^{\text {ar }}$ |  | ${ }^{2 / 3,3 / 3,23}$ | Coriesozopetam) | aterer ${ }^{\text {a }}$ |  |  |  | $\times$ |
| ${ }^{16}$ | 3atomammithmose | $2{ }^{20393} 3$ |  | s | $\checkmark$ | enememe | smmenath | \%m | ${ }^{1011}$ | ${ }^{\text {corr }}$ |  | 38,3/323 |  | ${ }_{3}^{3 / 233238}$ |  |  |  |  |
| ${ }^{11}$ | Somenemamamerer | 20932ay |  | s | - | Emencom | Comasmen | monk | ${ }^{21 a}$ | ${ }_{6} \mathrm{ar}$ | Conlmememinment | 3123 | comenorin | 2/3 |  |  |  |  |
| ${ }^{\text {ns }}$ |  | Hasosa |  | s | , | tuncome | somemer | uname | ${ }_{10 \text { ar }}$ | $\mathrm{cos}^{1}$ | emer | ${ }_{23}$ |  | $23,1 / 3$ |  |  | (oumen | $\times$ |
| ${ }^{19}$ | amompaus | ssountre |  | s | $\checkmark$ | nan |  | manerestemasa | ${ }^{101}$ | ${ }^{\text {cor }}$ | ${ }^{\text {comemazamem }}$ | ${ }_{3 / 333323}$ |  | ${ }_{38,3 / 3}$ | ontasomemem | ${ }^{3 / 3}$ | Coin Mon | $\times$ |
| ${ }^{20}$ | semasasa | ${ }_{\text {sisso }}$ | analam | s | $\checkmark$ | enactanem | Ssmanamis | ${ }^{2035}$ | ${ }^{101}$ | $\mathrm{crar}^{1}$ |  | ${ }_{3323}$ | Compenoz. coesosor | ${ }^{38223}$ |  |  |  |  |
| ${ }^{122}$ |  | ${ }^{23 a 4 a s}$ |  | s | * | enecome | ${ }^{19}$ | 29\% | ${ }^{1 a 1}$ | ${ }^{\text {cra }}$ |  | $33,3 / 3$ | Comereor | ${ }^{2 / 3}$ |  |  |  | $\times$ |
| ${ }^{12}$ |  | wame | \% | s | $\cdots$ | trac | uname | Unemem | 1 ar | ${ }_{6} \times 1$ | Cofymeneric:omener 21 | 38323 | Canperon | $2{ }^{2 / 3}$ |  |  |  | $\times$ |
| ${ }^{23}$ |  | ${ }^{123} 8{ }^{2}$ | ${ }^{\text {atemen }}$ | , | , | мсамм | Semenath | ${ }^{\text {mox }}$ | ${ }^{1012}$ | ${ }_{\text {arr }}$ | m |  | unam |  | со.4 | $2 / 3$ | samanemasamor |  |
| ${ }^{128}$ |  | \%ese2 |  | ' | $\stackrel{ }{ }$ | мпсам | Semenam | ${ }^{9 \%}$ | 2012 | ${ }^{\text {ar }}$ |  |  | unemm |  | cos | ${ }_{6} 6$ |  |  |
| ${ }^{25}$ | memamemarapea | ${ }^{312.467}$ |  | . | $\checkmark$ | teroc | Semenem | mex | ${ }^{1,4}$ | $\mathrm{car}_{1}$ |  | 31233 | Unemem |  | co.4 | $2 / 3$ |  | $\times$ |
| ${ }^{26}$ | mamomesposate | $2{ }^{2 s 58} \times 2$ |  | , | , | trox | Semenem | ssx | ${ }^{201}$ | ${ }_{\text {cra }}$ |  | \%/3,3/2/3 |  |  | cos4 | $1 / 3$ |  | $\times$ |
| ${ }^{21}$ | Somename | ${ }^{12363}$ | Natab | ' | $\stackrel{ }{ }$ | месам | sematam | mask | ${ }^{201}$ | ${ }^{\text {c.ir }}$ | $\mathrm{comen} 21^{\text {a }}$ | ${ }^{2 / 3}$ | unamm |  | cos 4 | ${ }^{1 / 3}$ |  | $\times$ |
| ${ }^{128}$ |  | ${ }^{12,383}$ | Natal | 1 | $\stackrel{\square}{ }$ | zatar | Sememath | sesk | ${ }^{1 \times 2}$ | ${ }_{\text {crer }}$ |  | 3 3/3s, | Uneme |  | ¢оя | ${ }^{1 / 3}$ |  | $\times$ |
| ${ }^{12}$ | Natabere | ${ }^{11}{ }^{1254}$ |  |  | $\cdots$ | месани | Stemenath | 2093\% | ${ }^{12 d}$ | $\cdots$ | m |  | Unemem |  | ¢.4 | 4 | Suatematesone |  |
| ${ }^{30}$ |  | $2{ }^{2128293}$ | wan | $\checkmark$ | $\checkmark$ | месамм | Uname | Uneam | ${ }^{2 \times 1}$ | $\mathrm{arar}^{1}$ |  |  | Uname |  | co-4 | ${ }_{46}$ |  | $\cdots$ |
| ${ }^{13}$ |  | ${ }^{25812}$ | menemmememal | $\stackrel{1}{4}$ | $\cdots$ | месам | Stementat | Tosemem | ${ }^{2} 12$ | $\mathrm{cin}^{2}$ | comene 2 | ${ }_{6}$ | Uname |  | cos 4 | ${ }^{2 / 6}$ |  | $\times$ |
| ${ }^{13}$ | teranatasam | Noss9 | memen | , | r | месам | Stememat | $203 \%$ | $1{ }^{1 / 4}$ | arr | Comenem:mmemit compenem | \%6\%6, 5 \% | uname |  | cos 4 | $2 \%$ |  | $\times$ |
| ${ }^{\text {Bs }}$ | tromemouts | \% 8 \% 59 | sameme | $\checkmark$ | $\cdots$ | месам | Stememath | sex |  | ${ }_{\text {cra }}$ | $\cdots$ |  | Uneme |  | соя | ${ }_{46}$ | Sill |  |
| ${ }^{129}$ | Trabeementame | 2 | atememe | $\pm$ | $\checkmark$ | м catm | Smememish | max | ${ }^{2} 1{ }^{1}$ | $\stackrel{\square}{0}$ | m |  | unem |  | co.4 | ${ }_{4}$ |  |  |
| ${ }^{15}$ |  | 132783/2 |  | matememe | * | месам | semment | zasx | ${ }^{201}$ | ${ }^{\text {cra }}$ |  | ${ }^{23} 23 / 3$ | unam |  | cos 4 | 1/3 |  | $\times$ |
| ${ }^{36}$ |  | $3{ }^{303} 3$ | memememe | (tasembesems | * | ${ }_{\text {trax }}$ | sar | sosiox | ${ }^{2 a 1}$ | ${ }^{\text {arn }}$ | ${ }_{\text {comma }}$ | 1/2 |  |  | cos. | \% $/$ |  | $\times$ |
| ${ }^{37}$ |  | ${ }^{\text {asas2ats }}$ | Alcohol\| Alkane, branched with tertiary carbon| Aryl halide| Piperidine। Saturated heterocyclic amine | | s | $\checkmark$ | enamenam | commsome | ses\% | ${ }^{201}$ | ${ }^{\text {cra }}$ | $\cdots$ |  | uname |  | cos4 | $1 / 3$ |  | $\times$ |
| us |  | A2532. | 边 | s | $\cdots$ | teroc | Sematan | sem | 2at | ${ }_{0}$ | comenes., menem is | U/2, $/$ h | Unomm |  | co.4 | 1/2 |  | $\times$ |
| ${ }^{19}$ | ${ }^{12}$ 2emamatasasathem | $2{ }^{2043} 5$ | emamemetamameme | s | $\stackrel{\rightharpoonup}{*}$ | vancenam | chmasamel | max | $1{ }^{\text {a }}$ | ${ }_{\text {cri }}$ | m |  | Uneme |  | ${ }^{\circ} \times$ | ${ }^{46}$ |  |  |
| ${ }^{20}$ |  | (3s5802 | mememel | s | * | anm | Semenam | ${ }^{\text {s\% }}$ | ${ }^{201}$ | $\mathrm{car}_{1}$ | $\cdots$ |  | unemm |  | ${ }^{\text {cos }} 4$ | 4 |  |  |
| ${ }^{14}$ |  | Sosesa |  | s | - | Emeneme | unamm | untem | ${ }^{201}$ | ${ }^{\text {cor }}$ | " |  | momem |  | cos | 1/2 |  | $\times$ |
| ${ }^{122}$ |  |  | atel | s | ' | ${ }^{\text {zuem }}$ | ${ }_{\text {sar }}$ | ${ }^{\text {sox }}$ | ${ }^{201}$ | ${ }^{\text {cra }}$ | ${ }_{\text {comanas }}$ | \% | unomm |  | cos | 1/2 |  | $\times$ |
| ${ }^{138}$ | Coblomemamemad | ${ }^{3385} 2$ |  | s | * | ${ }^{\text {zear }}$ | т | mas | ${ }^{201}$ | ${ }^{\text {cor }}$ | ${ }^{\text {comana }} 3$ | ı/ | unam |  | cos 4 | , |  | $\times$ |
| ${ }^{126}$ |  | S ${ }^{\text {s7 }}$ |  | s | * | мпатм | sar | ${ }^{\text {anas }}$ | ${ }^{101}$ | ${ }_{\text {cra }}$ |  | 56,46 | unhem |  | cos4 | ${ }^{26}$ |  | $\times$ |
| ${ }^{15}$ |  | $63449-41-2$ (another possible CAS $\#$ is $8001-54-5$, which is reported in NICEATM ALTTOX) | amemimer | s | * | wearm | Ssmentan | ass | ${ }^{201}$ | ${ }^{\text {cra }}$ |  | 33,31 |  | ${ }^{\text {atmen } 13}$ | cos4 | 13 |  | $\times$ |
| 12 | ventasomesead | seme | menel | s | * | zuer | Ssematat | 20x | ${ }^{1 a 1}$ | $\mathrm{crar}^{\text {a }}$ | ${ }^{\text {comen}} 3$ | /2 | Uneme |  | ¢0.4 | \% |  | $\times$ |


| ${ }_{\substack{\text { sumur }}}^{\substack{\text { sumber }}}$ | Test Chemital Name | cas nn | Organic functional foups | Physical <br> Form as <br> tested |  | $\underbrace{}_{\substack{\text { Oata } \\ \text { Source }}}$ | CommercialSource | $\underset{\substack{\text { Avalable } \\ \text { punity }}}{ }$ | Numberof Studies |  | Severity |  | Drivers of ClassificationPersistence |  | Speecific obserations |  | Comments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | Cutoff values | $\substack{\text { Numberof } \\ \text { animas }}$ | cutofftime | $\underbrace{\text { and }}_{\substack{\text { Numberof } \\ \text { animals }}}$ |  | $\begin{aligned} & \text { Number of } \\ & \text { animals } \end{aligned}$ |  |  |
| ${ }^{19}$ | Corameste | ${ }^{3585} 1$ | and | s | $\checkmark$ | ${ }_{\text {craco } / \text { zaer }}$ | stemenem | 2m93 | ${ }^{101} 1$ | ${ }^{\text {car }}$ | menet：Commememi， | $33_{3}$ | unama |  | cos4 | ${ }^{1 / 3}$ | sumy | $\times$ |
| ${ }^{12}$ | atamemen | Sossato |  | s | ＊ | месам | semment | unemm | ${ }^{1 a 1}$ | ${ }_{\text {car }}$ | m |  | untame |  | cos4 | ${ }_{46}$ |  |  |
| ${ }^{129}$ |  | 20esest | Natasal | s | $\checkmark$ | zaer | semmath | ss\％ |  | ${ }_{0} \mathrm{ar}$ |  |  | Uneme |  | ${ }^{\text {co．4 }}$ | ${ }^{1 / 3}$ | Smatumememo | $\times$ |
| ${ }_{50}$ | Nomen | \％ese | （emm | 5 | $\checkmark$ | zeer | Sememath | as | $1{ }^{1 / 4}$ | ${ }^{\text {car }}$ | m |  | Uneme |  | cos 4 | ${ }^{3 / 3}$ |  |  |
| ${ }^{31}$ | Nexatromemame | ${ }^{\text {missars }}$ | ceme | s | $\cdots$ | zame | semmame | ${ }_{\text {ow }}$ | ${ }_{\text {a }}$ a 1 | $\mathrm{car}^{\text {a }}$ | comman | ${ }_{3}^{3 /}$ | umam |  | cos4 | $1 / 3$ |  | $\times$ |
| ${ }^{15}$ | Statmatate | 138025 | wa | s | $\cdots$ | zear | Uname | Unemam | 1.10 | ${ }^{\text {cor }}$ | м |  | Uneme |  | ${ }_{\sim}^{\text {ces }}$ | ${ }_{3 / 3}$ |  | ？ |
| ${ }^{\text {us }}$ | Sammosemememe | 2asm | wa | s | $\checkmark$ | zaer | semment | s＊ | Las | ${ }_{0}^{\text {an }}$ | m |  | uneme |  | co．4 | ／／2 | Sunammanemo | $\times$ |
| ${ }^{\text {s5 }}$ | Satmomemosomompous） | neases | wa | s | $\checkmark$ | месам | Smeamemen | unamm | ${ }^{1 a} 1$ | ${ }^{\text {ar }}$ | ＂ |  | unamm |  | co．4 | \％／6 |  | $\times$ |
| ${ }^{\text {us }}$ | menees | ${ }^{23856}$ | manesamame | s | $\checkmark$ | wss ¢ппо | semmame | mem | ${ }_{\text {da }}{ }^{\text {a }}$ | $\mathrm{Car}_{1}$ |  | ，13， $23,2 / 3$ |  |  | co．4 | $2 / 3$ |  | $\times$ |
| ${ }^{36}$ |  | 2906988 | Semem | s | $\checkmark$ | месам | semmath | \％x | 2al | $\cdots$ | m |  | Unamem |  | co．4 | ${ }^{2 / 6}$ |  |  |
| ${ }^{57}$ | $2{ }^{2}$ | 22321asa | comen | ， | ， | evercomen | crimacemen | ${ }^{\text {mox }}$ | ${ }_{1}{ }^{\text {a }}$ | ${ }_{\text {cra }}$ |  | ข／2a， 2,2 | uname |  | onnabesmamem | \％ |  | $\times$ |
| ${ }^{\text {us }}$ |  | 337213 |  | s | ＊ | меати | Sombemese | untam | ${ }^{2 a 1}$ | car | m |  | uname |  | onamemememam | \％ |  | $\times$ |
| ${ }^{39}$ | 2moatumamenice | seoses， |  | s | ， | месам | semment | 30＊ | $1{ }^{1 a 1}$ | ${ }^{\mathrm{cm}}$ | m |  | umam |  | onnaememamem | \％ |  | M |
| ${ }^{50}$ | 4－（（4－Amino－3－methylphenyl）（4－imino－3－methyl－2，5－cyclohe 1－yidene）methyl）－2－methyl benzenamine hydrochloride | ${ }^{2 \times 2 a n} 7$ | $\mathfrak{c}$ | s | $\checkmark$ | ventanem | semenech | menemesmase | ${ }^{101}$ | ${ }^{\text {cr1 }}$ | m |  | uname |  | omatameme | 3／1 |  | ¢ |
| ${ }^{161}$ |  | casese |  | s | － | месам | uname | uname |  | ${ }_{0}$ | m |  | uneme |  | omacomamamem | n |  | $\times$ |
| ${ }^{162}$ |  | 2585102 |  | s | $\checkmark$ | Cmenstuese | roperear | 20sx | ${ }^{1 a 4}$ | ${ }^{\text {cor }}$ | m |  | unemo |  | ommo | \％／ |  | x NP |
| ${ }^{66}$ |  | ${ }^{2}$ | 边 | s | ＊ | месим | smemmant | anx | ${ }^{1 a 1}$ | ${ }^{\text {cri }}$ | ＂ |  | mam |  | onvesmameam | \％ |  | $\times$ |
| ${ }^{\text {see }}$ | cosomememame | sososes | comeme | uname | ＊ | месам | uname | uname | ${ }_{1} a^{1}$ | $\mathrm{car}^{\text {a }}$ |  |  | unamm |  | onsamememem | \％ | Semen | $\times$ |
| ${ }^{155}$ | mopmomememera | ${ }^{139729.1}$ |  | unaman | $*$ | wearm | uname | Unamam | ${ }^{101}$ | ${ }^{\text {can }}$ | m |  | unama |  | omeasmamas | \％／ |  | $\times$ |
| ${ }^{106}$ |  | Lessess | Lembut | 1 | $\checkmark$ | teroc | sememen | \％＊ | ${ }_{\text {La }}$ a | cran |  | \％s， 6 | Conemor，comom | \％6，2\％ |  |  |  |  |
| ${ }^{16}$ | 2emmatema | aseme |  | $\checkmark$ | $\checkmark$ | trere | semment | menk | ${ }^{1 / 4}$ | $\cdots$ |  | \％e， $3 / 4$ | Carpenor Coemem | 3m， |  |  |  |  |
| ${ }^{\text {zes }}$ | neeme | \％eas | Seme | ， | $\checkmark$ | trere | smement | mone | $1{ }^{1 a 1}$ | ${ }_{\text {cran }}$ |  |  |  | Amiatich |  |  |  |  |
| ${ }^{159}$ |  | ${ }^{\text {seng } 510}$ |  | $\stackrel{ }{ }$ | $\checkmark$ | wearm | semmemen | 20x mamem | ${ }_{1 \times 1}$ | ${ }^{\text {cosen }}$ | comemen | ${ }^{3 / 3}$ | comom | 1／3 |  |  |  |  |
| vo | Prememal | Seas | 为 | ， | $\stackrel{ }{ }$ | trome | Sememen | 9x | La ${ }^{\text {a }}$ | $\cdots$ |  | $3 / 3,3$ | Comomoromemor | 2man |  |  |  |  |
| ${ }^{12}$ |  | ${ }^{40175}$ | tatat | ， | $\checkmark$ | teroc | semenem | masx | $2{ }^{2 a}$ | cran |  | 273,23 | Coripeor | $2 / 3$ |  |  |  | $\times$ |
| ${ }^{12}$ | amramsamamomeat | sanso | andel | ， | ， | venctane | Ansear | sex | ${ }_{1} a_{1}$ |  |  |  |  | 31323， $3 / 3$ |  |  |  |  |
| ${ }^{13}$ |  | Seseo | emem | ， | $\checkmark$ | troc | т | max | ${ }^{1 a 2}$ | ${ }^{\text {cran }}$ |  | 31333 | Comemor comomor | 213,13 |  |  |  |  |
| ${ }^{174}$ |  | Seseo | 退 | ， | $\checkmark$ | ws | т | max | ${ }^{2 d} 2$ | ${ }_{\text {cresa }}$ |  | $33^{3} / 23,2 / 3$ | Comemer comemor | 23／3／3 |  |  |  |  |
| ${ }^{15}$ | Tomenalaral | ${ }^{23} 8$ |  | $\checkmark$ | $\checkmark$ | teroc | Semment | 3m | $1{ }^{1 / 2}$ | cran | $c^{\text {comematicen menen } 2}$ | Hasa | Canemer coemom | He，$/ 4$ |  |  |  | $\times$ |
| ${ }^{178}$ | wemesameasata） | 2029 | ceam | $\stackrel{1}{4}$ | $\checkmark$ | teroc | Stememh | 2 2max | $1.1{ }^{1}$ | ${ }^{\text {cras }}$ |  | 3／4，39 | Conleror comom | Na／1／a |  |  |  | ¢ |
| ${ }^{17}$ | wesinambeeme | ${ }^{2933}$ | ，eneme | $\checkmark$ | $\checkmark$ | trex | smememat | mank | $1{ }^{1 a}$ | ${ }_{\text {cran }}$ | ${ }^{\text {comema } 2 \text { a comenem } 22}$ | $316,3 / 4$ | coriemor | 3 |  |  |  |  |
| ${ }^{178}$ |  | 2335922 |  | ， | ， | venconem | romemer | 90x meax | 102 | ${ }^{\text {crasa }}$ |  | 3／3，3，3／3 | Comesenor | $3 / 3$ |  |  |  | ， |
| ${ }^{19}$ |  | ${ }^{133} 3$ | atated | $\pm$ | － | tract | Sememath | mas8 | $2{ }^{2 d}$ | （aza |  | Ats， 4 |  | $3 \mathrm{~m} / 1 / 4$ |  |  |  | $\times$ |
| ${ }^{100}$ | Htamas | ${ }^{11273}$ | neasal | $\stackrel{1}{4}$ | $\checkmark$ | teroc | Semenem | 2935 | ${ }^{1,4}$ | cran |  | Nsa／a | Conemoror | 4 |  |  |  |  |
| ${ }^{181}$ | Cotasalaser | ${ }^{118375}$ | natabl | ． | $\checkmark$ | track | stmanemat | asm | ${ }_{10}^{10} 2$ | cran |  | $33^{3 / 3232 / 3}$ |  | 23,13 |  |  |  | 凶 |
| ${ }^{\text {ma }}$ |  | 232463 | wa |  | $\checkmark$ | местм | 5mer | Stsaex | ${ }^{1 / 4}$ | $\cdots$ |  | $3 / 3 / 3$ | Coripeor 9 | 3 |  |  |  |  |
| ${ }^{138}$ | nomasisemer | ssoors | matamen | ， | $\checkmark$ | месим | semmath | \％ | ${ }^{101}$ | ${ }^{\text {crand }}$ | comem 21 | \％ |  | \％／6，46 |  |  |  |  |
| ${ }^{13}$ | Prataerasa） | 20884 | enter | $\checkmark$ | $\checkmark$ | us | Semeneme | mom | ${ }^{242}$ | $\underset{\sim}{\text { crand }}$ |  |  | Corpenor：coener 9 | 3／2，2］ |  |  |  | $\times$ |
| ${ }^{\text {as }}$ |  | 20072 | come | demen | － | trox | smmast | anx | ${ }^{1 a} 1$ | ${ }_{\text {cran }}$ |  |  |  |  |  |  |  |  |
| ${ }^{136}$ |  | ${ }^{302554} 4$ |  |  | ， | ws | smeneme | ${ }^{\text {anx }}$ | ${ }_{1}{ }^{\text {a }}$ | ${ }_{\text {crasa }}$ |  |  | ${ }_{\text {comemor }}$ comomor | ${ }_{2 / 3}^{3} / 3$ |  |  |  |  |
| ${ }^{138}$ |  | ${ }^{2033} \times 2{ }^{\text {a }}$ | ，mismex |  | ． | ws | stranemat | anx | ${ }^{1 a d}$ | ${ }_{\text {cras }}$ | $c_{\text {comen } 2 \text { compenen } 22}$ | $3_{3 / 33}$ | Coimeror comesor | 33273 |  |  |  |  |
| ${ }^{\text {nes }}$ | Sammemen matheseman | ${ }^{512123}$ | \％ay |  | ． | troc | sematach | 20\％ | ${ }^{1 a 1}$ | ${ }_{\text {cran }}$ |  | O6， 86.406 | Conienor：Comesor | 36，46 |  |  |  | $\times$ |
| ${ }^{\text {¹9 }}$ | Sommumpumbecamasas） | Ss2， 3 |  | ateme | ＇ | месам | semmemen | max | 3as | $\operatorname{cosen}^{1}$ | comem 2 | $2 / 3$ | ${ }^{\text {comemoran memor }}$ | \％ 2,18 |  |  |  | $\times$ |
| ${ }^{30}$ |  |  |  | s | ． | enemen | ${ }^{\text {cmamasemat }}$ | ${ }^{938}$ | ${ }^{101}$ | ${ }_{\text {cras }}$ |  | ${ }_{3 / 3 / 3,3 / 3}$ |  | 8，3， |  |  |  |  |
| ${ }^{19}$ | 3．3omamemenesed | ${ }^{\text {miseab }}$ |  | s | $\stackrel{ }{ }$ | trate | semenem | \％ | ${ }^{1 a 1}$ | $\underset{\sim}{\text { cras }}$ | comemer | $3 / 3$ | coemor | $1 / 3$ |  |  |  |  |
| ${ }^{13}$ | actanomamemate | soses |  | s | $\cdots$ | trox | semeneme | \％ | ${ }^{2} 81$ | coren |  |  | ${ }^{\text {copenor }, \text { colpemo }}$ \％ | 21323 |  |  |  |  |

Cosmetics Europe
Draize eye test Reference Database (DRD)
Barroso et al. 2016



Cosmetics Europe
Draize eye test Reference Database（DRD）
Barroso et al． 2016

| Study | Test Chemical Name | casan | Organic functional Groups | $\begin{array}{\|c} \hline \text { Physisal } \\ \text { Sompas } \\ \text { tested } \end{array}$ |  | $\underbrace{}_{\substack{\text { Data } \\ \text { surre }}}$ | Commercial $\begin{gathered}\text { Source }\end{gathered}$ | $\underset{\substack{\text { avalale } \\ \text { Puity }}}{ }$ | Number of fudies | （uns chs | Severity |  | chassifation |  | Specticobse |  | Comments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | Cutoff values | $\underbrace{\text { a }}_{\substack{\text { Numberof } \\ \text { animas }}}$ | cutoft time | $\underbrace{\text { a }}_{\substack{\text { Numberof } \\ \text { animas }}}$ |  | $\substack{\begin{subarray}{c}{\text { Numbere of } \\ \text { animals }} }} \end{subarray}$ |  |  |
| ${ }^{235}$ |  | Iosene | \％omm | $\square$ | $\cdots$ | us | semaman | 2093\％ | 120 | nocat | $\cos 0$ |  |  |  |  |  |  |  |
| ${ }^{236}$ |  | 2080．1 | mome | $\stackrel{1}{4}$ | $\stackrel{\rightharpoonup}{*}$ | trac | stmentan | 2093＊ | 2012 | wocer | $\cdots$ |  |  |  |  |  |  |  |
| ${ }^{27}$ | Sandeate | 12384 |  | ， | ＊ | trore | smenemat | 203s\％ | 121 | nocer | $\infty$ |  |  |  |  |  |  |  |
| ${ }^{28}$ | Popemaso | ${ }^{3,9}$ |  | ， | ， | ennecam | cimasment | ${ }^{528}$ | ${ }^{101}$ | nosa | coso |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{23}$ |  | 4382364 |  | ， | － | месим | smmame | unamem | 101 | noort | $\infty$ |  |  |  |  |  |  |  |
| ${ }^{20}$ |  |  |  | $\stackrel{ }{ }$ | ＊ | wearm | Onteosucoowem | 28，mames | ${ }^{101} 1$ | nocer | ${ }^{\infty} \times$ |  |  |  |  |  |  |  |
| ${ }^{29}$ | spree | noous | ${ }^{\text {mamel }}$ | ， | ＊ | troc | smmatam | amx | ${ }^{101}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }^{22}$ |  | 2027． |  | 1 | ＊ | месим | smmenth | 203s | 2012 | nocat | coso |  |  |  |  |  |  |  |
| ${ }^{23}$ | maxassam | 200840 | wn |  | ． | ${ }^{\text {us }}$ | uname | Som | ${ }^{101}$ | nocat | ${ }^{\text {cos }}$ |  |  |  |  |  |  | － |
| ${ }^{29}$ |  | 200727 | and | ， | ． | trore | smmenem | nex | ${ }^{201}$ | nocen | $\cdots$ |  |  |  |  |  |  |  |
| ${ }^{235}$ | memmemamemaxa | Dess 2 | Amomammas | ，thesemesemst | ． | месам | smmemat | nom | ${ }^{201}$ | nocer | $\cdots$ |  |  |  |  |  | cor． |  |
| ${ }^{236}$ |  | Ssi， 3 | \％ome |  | ． | месим | smmentan | nom | ${ }^{2012}$ | nocer | coso |  |  |  |  |  | cor． |  |
| ${ }^{28}$ |  | S3，2］ | \％ | 2ememinemest | ． | шестм | semment | amp | ${ }_{201}$ | nocer | $\cdots$ |  |  |  |  |  | cosiomenemen |  |
| ${ }^{28}$ |  | ${ }^{\text {anamam }}$ | wn | （tamemesent | － | месам | Unmam | unemm | ${ }^{120} 1$ | nocer | coso |  |  |  |  |  |  | ， |
| ${ }^{29}$ | Smaneme | ${ }^{3027}$ | ， | s | ． | ${ }^{\text {zuar }}$ | sar | gex | ${ }^{101}$ | nocat | coso |  |  |  |  |  | cos．amman／a |  |
| ${ }^{\text {som }}$ | Ammame | atas | 为 | s | － | $z z^{\text {zar }}$ | uname | unamm | ${ }_{101}$ | nocer | coso |  |  |  |  |  |  |  |
| ${ }^{30}$ | 2，3strome | nees3 | \％esela | s | － | ${ }_{\text {zanf }}$ | smomement | 20\％ | 1201 | nocen | $\cdots$ |  |  |  |  |  | ${ }_{\text {coizemman／3 }}$ |  |
| ${ }^{302}$ | 2mansmatame | 2243 |  | s | $\checkmark$ | ws | 5 | \％x | ${ }^{201}$ | nowt | $\infty$ |  |  |  |  |  |  |  |
| ${ }^{303}$ |  | 2385838 |  | s | ， | ws | stramemen | ${ }_{\text {sex }}$ | ${ }^{201}$ | nocer | $\infty$ |  |  |  |  |  |  |  |
| ${ }^{306}$ | $2{ }^{2}$ | ${ }^{223} 358$ |  | s | ＊ | wearm | nutasar | ${ }^{38}$ | ${ }^{201}$ | nocat | coso |  |  |  |  |  |  |  |
| ${ }^{35}$ |  | Lsesessic |  | s | ＊ | wearm | Forssememe | ${ }^{9 \times}$ | ${ }^{201}$ | nocat | coso |  |  |  |  |  |  |  |
| ${ }_{36}$ |  | 120338 |  | s | － | $z^{\text {zasf }}$ | smanemat | $9 \times$ | ${ }^{101}$ | nocer | coso |  |  |  |  |  | cosionman3 |  |
| ${ }^{30} 7$ |  | 20s3 357 |  | s | r | Comentastave | finoerem | 2ss | 1201 | noert | $\infty$ |  |  |  |  |  |  |  |
| ${ }_{38}$ |  | 5150237 | anemement | s | $\stackrel{\square}{ }$ | Evatenam | roperear |  |  | noert | $\infty$ |  |  |  |  |  |  | ： |
| ${ }^{309}$ | Seamememotate | Sente | and | s | $\checkmark$ | ws | semenemat | \％ | $1{ }^{1}$ | nost | coso |  |  |  |  |  | cosematimer |  |
| ${ }^{30}$ | Somemem | \％3n3\％ |  | 5 | ＊ | everconem | smmentan | momesestenasa | ${ }^{201}$ | nocat | cos |  |  |  |  |  |  |  |
| 31 | Somesobeme | ${ }_{\text {sirab }}$ | Some | 5 | $\checkmark$ | ws | uname | Unemem | ${ }_{101}$ | noor | $\cdots$ |  |  |  |  |  |  | ？ |
| ${ }^{312}$ | actumemed | 1328837 | atamemo esel | s | $\checkmark$ | ws | Stemement | S93\％ | ${ }_{101} 10$ | nower | $\cdots$ |  |  |  |  |  |  |  |
| ${ }^{313}$ |  | 23022， 2 | 为 | s | $\stackrel{ }{*}$ | ${ }^{\text {us }}$ | Stememath | 209\％ | ${ }^{201}$ | noct | cose |  |  |  |  |  |  |  |
| ${ }^{3 /}$ | mmoseman | So4， 9 |  | s | $\checkmark$ | ws | semment | 9\％ | ${ }^{201}$ | nocen | coso |  |  |  |  |  |  |  |
| ${ }^{35}$ | Nestamembate | （8582， 24 | van | s | $\cdots$ | ws | Sememexh | ${ }_{3 \times}{ }^{3 \times}$ | ${ }^{201}$ | wocr | $\cdots$ |  |  |  |  |  |  |  |
| ${ }^{316}$ | Pomptramemenose | \％133 |  | s | $\checkmark$ | ws | Stememath |  | ${ }^{201}$ | nocar | cos |  |  |  |  |  |  |  |
| ${ }^{317}$ |  | ${ }^{332} 239$ | and | 5 | $\checkmark$ | ctac | smmenemen | ${ }^{9 \%}$ | ${ }^{2012}$ | nocat | coso |  |  |  |  |  |  |  |
| ${ }^{318}$ |  | 为 | wn | uname | ＊ | мпаим | ${ }^{\text {unamam}}$ | unomem | ${ }^{201}$ | nocer | coso |  |  |  |  |  |  | ？ |
| ${ }^{31}$ |  |  | mememel | unamm | $\cdots$ | wearm | unamm | unemam | ${ }^{101}$ | nocat | coso |  |  |  |  |  |  |  |
| ${ }^{30}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{30}$ | peeminamate | ${ }^{12,16}$ | memer | $\stackrel{ }{4}$ | ${ }^{*}$ | vimenam | chmas sata | sas\％ | ${ }^{201}$ | nocat | coow | ${ }^{\text {comen／6 }}$ |  |  |  |  |  |  |
| ${ }^{32}$ | Toueseata | ${ }^{\text {2oses } 3}$ | an | ， | $\checkmark$ | trom | Semamest | 2 293\％ | 2012 | nocat | co．．． | ${ }^{-(\operatorname{cosin} 1 / 4}$ |  |  |  |  |  | $\times$ |
| ${ }^{32}$ | ymanasa） | 120207 | nes | $\checkmark$ |  | trere | Semment |  | 201 | noct | co．．． | ${ }^{-2 \mathrm{Can} 1 / 4}$ |  |  |  |  |  |  |
| ${ }^{32}$ | Tramomomemomomasamem | areme | Doeneme |  | －$\cdot$ | месим | smomemat | \％10 | ${ }^{201}$ | nocer | coo．． | ${ }^{-\mathrm{Can} 212 / 6}$ |  |  |  |  |  |  |
| ${ }^{324}$ |  |  |  | s | － | trac | smmentan | ${ }^{9 \times}$ | ${ }^{101}$ | nocat | coso． | ${ }^{\text {．} \cos 1 / 3}$ |  |  |  |  |  |  |
| ${ }_{3} 35$ |  | mememee eoces | man | uname | $*$ | месам | Untame | Unemem |  | noer | coso．＊ | ${ }^{.} \mathrm{Cmom} / \mathrm{s}$ |  |  |  |  |  | $\cdots$ |
| ${ }^{36}$ |  | ${ }^{\text {unamam }}$ | ＂an | ， | ， | everconem | nopmear | untem | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{37}$ |  | sixa | Antrase | $\stackrel{\square}{4}$ | $\cdot$ | месам | Sememem | s\％ | $2{ }^{2 d}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{38}$ | 2， 2 atimemememe | \％s86 | an | ， | $\checkmark$ | ws | Sememex | ${ }_{\text {ax }}$ |  | noer | cos |  |  |  |  |  |  |  |
| ${ }^{39}$ |  | 206es | Natamen | $\checkmark$ | $\checkmark$ | $z^{\text {zeat }}$ | semmest | 3ex | ${ }^{2} \times 1$ | noer | $\cdots$ |  |  |  |  |  |  |  |
| ${ }_{3} 30$ | 2．asememememe | 2ease | antume |  |  | troc | 5 smameat | ${ }^{97}$ | ${ }^{2} \times 1$ | nocar | cos |  |  |  |  |  |  |  |
| ${ }_{3}^{33}$ |  | ${ }^{39827}$ | 为 | ． | $\stackrel{\square}{ }$ | trac | Stemement | ${ }^{\text {sex }}$ | ${ }^{20} 1$ | Nocat | cos |  |  |  |  |  |  |  |
| ${ }_{3}^{33}$ | 2asememate | ${ }_{\text {20，}}^{12}$ | ，ampluse | ， | $\stackrel{\square}{r}$ |  | Stamement | \％ow | ${ }_{\text {dad }}^{1, a_{1}}$ | Noort | cos |  |  |  |  |  |  |  |
| ${ }^{38}$ |  | ${ }^{1122020}$ | mant | $\stackrel{1}{4}$ | ， | ${ }_{\text {terac }}^{\text {terec }}$ |  | ${ }_{9 \times 1}^{9 \times 1}$ | ${ }_{2}{ }^{2}$ | Nocest | ${ }_{\text {cos }}$ |  |  |  |  |  |  |  |

$\underset{\substack{\text { Cosmetics Europe } \\ \text { Draize eye test Reference Database（DRD）} \\ \text { Barroso et al．} 2016}}{\text { 2016 }}$

| Study | Test Chemical Name | casan | Organic functional frups | Physical form a tested |  | （ ${ }_{\text {Data }}^{\text {Soure }}$ | Commercial $\begin{gathered}\text { Source }\end{gathered}$ | $\substack{\text { Avalale } \\ \text { punty }}$ | Numberof Stuides |  |  |  | Severity orvers of cassifation <br> Pesistene  |  | Specific observaions |  | Comments | SteShousd <br> Not sed <br> Used |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | Cutoffvalues | ${ }_{\substack{\text { Number of } \\ \text { animas }}}^{\substack{\text { a }}}$ | Cutoff time | ${ }_{\substack{\text { Number of } \\ \text { animas }}}^{\text {a }}$ | CO＝ 4 or other observations | Number of animals |  |  |
| ${ }_{35}^{35}$ | 1.50 bemememe | 20298 | hanmase | ， | r | zeroc | scmatam | ${ }_{38}$ | 1201 | nocer | coo |  |  |  |  |  |  |  |
| ${ }^{36}$ |  | Rers 8.4 | any | ， | $\checkmark$ | trac | Stmeneme | ${ }_{\text {ax }}$ | 2 | nocer | cos |  |  |  |  |  |  |  |
| ${ }_{3} 3$ |  |  | mamol | $\stackrel{ }{ }$ | ＊ | ${ }^{\text {zear }}$ | Uname | mam | ${ }^{201}$ | woces | coo |  |  |  |  |  |  | ： |
| ${ }_{33}$ | 2amenatabasame | samz | Untrasase | $\checkmark$ | $\checkmark$ | єтох | smometan | 9\％ | 1201 | nocat | coo |  |  |  |  |  |  |  |
|  |  |  | Namen |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }^{39}$ | Lmemen wheme | ${ }^{323837355}$ | ammen | $\checkmark$ | $\checkmark$ | zmatcam | Smanamat | ${ }^{3} 38$ | ${ }^{1201}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }_{30}$ | 2menemomememe | ${ }^{13588}$ | nn | $\stackrel{1}{4}$ | $\cdots$ | trac | Smenemath | 29\％ | 2011 | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{34}$ | 2．amememe | ${ }^{108083}$ | Nerasamat | $\stackrel{1}{4}$ | $\checkmark$ | ws | Smameme | ${ }^{\text {assx }}$ | ${ }^{101}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }_{32}$ |  | 32as30 | matamemmemememe | ， | ， | weatm | oratm | sem | ${ }^{10} 1$ | noour | coo |  |  |  |  |  |  |  |
| ${ }^{33}$ |  | 1323227 | ） | ， | $\stackrel{\square}{ }$ | месани | тa | 2asx | ${ }_{101}$ | nower | coo |  |  |  |  |  |  |  |
| ${ }^{\text {asa }}$ | 2 2，memeasal | 25854 | Ontaongoup | ． | $\checkmark$ | тйо | stanemen | sex | ${ }^{101}$ | nocer | $\ldots=0$ |  |  |  |  |  |  |  |
| ${ }^{35}$ |  | ${ }^{12380} 0$ | Nencol｜ | ， | ， | Enememe | ssmamath | ang | ${ }^{101}$ | nocat | ¢ $=0$ |  |  |  |  |  |  |  |
| ${ }_{36}$ |  | S11， 8 2 |  | ＇ | － | weam | somemem | ${ }^{\text {tow }}$ | ${ }_{201}$ | woan | cos |  |  |  |  |  |  |  |
| ${ }^{39}$ | 2emamemmemameree | 23808.8 | ateme | ， | ， | вето | ssmanemen | ${ }_{\text {9x }}$ | ${ }^{201}$ | nocen | cos |  |  |  |  |  |  |  |
| ${ }^{38}$ |  | 212593，${ }^{\text {a }}$ |  | ！ | ， | меаим | ssmmatan | ${ }^{3 \times}$ | ${ }^{201}$ | woat | coo |  |  |  |  |  |  |  |
| ${ }_{3} 9$ |  | ${ }^{2125} 5 \times 23$ | 隹 | ， | ＊ | wearm | smmentat | ${ }_{90 x}$ | ${ }^{101}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{\text {sio }}$ | zempeamesospose |  | 隹 | $\stackrel{1}{4}$ | － | єтох | ssmentath | ass | ${ }^{201}$ | nocer | ${ }^{\omega}=0$ |  |  |  |  |  |  |  |
| ${ }_{35}$ |  | 4454－05－1（103－75－3 reported in NICEATM ALTTOX，which corresponds to 2－Ethoxy－3，4－ |  | ， | ＊ | wearm | ${ }^{\text {ra }}$ | m\％ | ${ }^{201}$ | nocat | ${ }_{\text {cos }}$ |  |  |  |  |  |  |  |
| ${ }_{32}$ | 2mesememe | 20， 2.5 | soeme | 4 | $\stackrel{ }{ }$ | teroc | stamemen | 200\％ | ${ }_{10 \text { a }}$ | nocer | ¢00 |  |  |  |  |  |  |  |
| ${ }_{3} 3$ | 2nemomenocesame | ${ }^{\text {sesess3} 30}$ |  | ， | $\checkmark$ | Enetame | Soperer | Unesm | ${ }^{201}$ | nocer | ${ }_{\text {cos }}$ |  |  |  |  |  |  | ， |
| ${ }_{3} 3$ | 3， 3 memmematas | S2082 |  | $\stackrel{1}{4}$ | $\checkmark$ | ${ }_{\text {troce }}$ | Smanemat | ${ }^{9 \%}$ | ${ }^{201}$ | nocar | cos |  |  |  |  |  |  |  |
| ${ }_{35}$ | Semprome | 2014s | an | $\stackrel{1}{4}$ | $\checkmark$ | teroc | smanemat | ${ }_{3 \%}$ | 2.12 | nocat | cos |  |  |  |  |  |  |  |
| ${ }_{36}$ |  | ${ }^{23392}$ |  | ， | ， | trex | т | mesx | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{37}$ | swemmame | ${ }^{383} 34$ |  | $\stackrel{1}{4}$ | $\checkmark$ | teroc | stamement | \％＊ |  | nocer | $\omega=0$ |  |  |  |  |  |  |  |
| ${ }_{3 s}$ |  |  | mammel | ， | ， | mearm | smanemath | ${ }_{\text {sex }}$ | ${ }^{1012}$ | noert | cos |  |  |  |  |  |  |  |
| ${ }^{39}$ |  | 3 Sm 5 S． 10 | \％ent | ‘ | ， | weatm | strastant | sax | 2012 | noces | cos |  |  |  |  |  |  |  |
| ${ }^{350}$ | Aemenomate | Sex | 为 | $\stackrel{ }{ }$ | ＊ | troc | stmatant | ${ }^{3 \times 8}$ | ${ }^{101}$ | nocar | coso |  |  |  |  |  |  |  |
| ${ }_{36}$ | Any memombe | S6s9 | 2emmenter | 1 | $\checkmark$ | terac | Smmatash | ${ }_{30 \%}$ | ${ }_{101} 1$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }_{3} 3$ |  | ${ }^{\text {po，seso }}$ |  | ， | ， | weatm |  | 20sx | ${ }^{201}$ | noces | cos |  |  |  |  |  |  | $\times$ |
| ${ }_{35}$ |  | 10，880 |  | $\stackrel{1}{4}$ | $\checkmark$ | мпеаm |  | ass | ${ }^{101}$ | nocat | ¢ $=0$ |  |  |  |  |  |  | $\times$ |
| ${ }^{36}$ | Ampeamememe | 28837 | Letam | ． | $\checkmark$ | меаим | Smmatash | same | ${ }_{1}^{10,1}$ | noert | cos |  |  |  |  |  |  |  |
| ${ }_{35}$ |  | ssins | Sememe | ， | ， | weatm | ssmanemen | ${ }_{\text {sx }}$ | ${ }^{201}$ | noout | cos |  |  |  |  |  |  |  |
| ${ }^{36}$ |  | 45sses60 |  | － | ， | Enercam | roperer | sxsmeas | ${ }^{201}$ | nocat | cos |  |  |  |  |  |  | ， |
| ${ }^{30}$ | Sex | ser31323 |  | ‘ | r | enememe | noperear | sss meas | ${ }^{101}$ | wocr | cos |  |  |  |  |  |  | ： |
| ${ }_{38}$ |  | 2as2723 | memen | $\stackrel{1}{4}$ | ＊ | ${ }_{\text {zerer }}$ | smmentan | 200x | ${ }^{201}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }_{3}{ }^{36}$ | samozememe | 18782 | andememe | ． | $\checkmark$ | terac | stramath | ${ }_{\text {sex }}$ | ${ }^{120} 1$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{30}$ | Carsonon $\mathrm{N}-9$（Chemical name：Nonyl phenol ethoxylate， branched）（neat） | 9016－45－9（127087－87－0 reported in NICEATM ALTROX， which corresponds to Tergitol NP nonionic surfactants） |  | ， | ， | veatm | stame | whamm | ${ }^{101}$ | wocr | coo |  |  |  |  |  | msateror | ， |
| ${ }^{31}$ | sorrexesem | 931－87－3（931－88－4 reported in ECETOC，which corresponds to Cyclooctene） | ，mix | $\stackrel{1}{4}$ | $\checkmark$ | teroc | smantant | 3s\％ | ${ }^{101}$ | nocer | ${ }^{\text {coso }}$ |  |  |  |  |  |  |  |
| ${ }_{32}$ | cotasalumol | Sente2a |  | $\stackrel{1}{4}$ | $\checkmark$ | месам | uname | Unotem | ${ }_{101}$ | noct | ¢о |  |  |  |  |  |  | ： |
| ${ }_{3}^{31}$ | Oatasabems | name | van | ， | $*$ | trock | Uname | Unemem | 10.1 | nocer | ¢๐0 |  |  |  |  |  |  | ？ |
| ${ }^{374}$ | Omammbeombemenemen | ${ }^{\text {sasensas } 2}$ |  | ， | ， | мcatm | stmantan | volam | ${ }^{101}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }_{375}$ |  |  |  | ， | ＇ | Enemam | ${ }^{\text {roperearan }}$ | ${ }^{\text {aox }}$ | ${ }^{201}$ | noar | cos |  |  |  |  |  |  | ： |
| ${ }^{376}$ | Dastratatase | ，209315 | Somome | ， | ， | Entame | nowear | $9 \%$ | 1201 | nocar | coo |  |  |  |  |  |  | ？ |
| ${ }^{37}$ | Daxpeara | ${ }^{23823}$ | Namer | $\stackrel{1}{2}$ | $\checkmark$ | Emeneme | Smamemat | ${ }_{3}{ }^{\text {\％}}$ | 101 | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{3 / 8}$ |  | Nosas | bemem | t | $\stackrel{ }{*}$ | teroc | scmatam | ans | ${ }^{101}$ | nower | cos |  |  |  |  |  |  |  |
| ${ }^{39}$ |  | 28.36 | poute | ． | $\stackrel{ }{ }$ | troc | Scmatat | ${ }_{\text {ax }}$ | ${ }^{201}$ | nocer | ¢＝0 |  |  |  |  |  |  |  |
| so | poseses | $1{ }^{12} \times 2$ | memmen | ． | $\checkmark$ | teroc | smmatath | 29\％ | 2.12 | noct | coo |  |  |  |  |  |  |  |

$\underset{\text { Craize eye test Reticerence Europe Database (DRD) }}{\substack{\text { Barroso et al. } \\ \text { 2016 }}}$


| Stuay | Test Chemical Name | casan | Organic functional foups | $\begin{aligned} & \text { Physical } \\ & \text { Form as } \\ & \text { tested } \end{aligned}$ |  | ${ }_{\substack{\text { Data } \\ \text { surre }}}^{\text {a }}$ | Commercial |  | Numberof Studies |  | Severity |  | $\frac{}{\text { of Cassifation }}$ Pesistence |  | Specific obserations |  | Comments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | Cutoftrvalues | $\underbrace{\text { a }}_{\substack{\text { Numberof } \\ \text { animas }}}$ | cutoff time | $\begin{aligned} & \text { Number of } \\ & \text { animals } \end{aligned}$ | $\begin{aligned} & \mathrm{CO}=4 \text { or other } \\ & \text { observations } \end{aligned}$ | $\begin{gathered} \text { Number of } \\ \text { animals } \\ \hline \end{gathered}$ |  |  |
| ${ }^{6 s}$ | Tomeneme | ${ }^{\text {zeass }} 3$ | manee | $\stackrel{1}{4}$ | $\because$ | trac | 为 | Unamam | 201 | nocer | ¢о0 |  |  |  |  |  |  |  |
| ${ }^{45}$ | nommenampe | ${ }^{13539387}$ |  | $\stackrel{ }{ }$ | $\checkmark$ | trox | Unamam | unteam | ${ }^{201}$ | nocar | coso |  |  |  |  |  |  | , |
| ${ }^{46}$ | Nempome | noss2 | antuace | , | , | trac | Smmantint | sex | 1201 | nocar | cos |  |  |  |  |  |  |  |
| ${ }^{47}$ | Intane | noses | wna | . | , | ws | smmatash | 20] | ${ }_{101}$ | nocer | coo |  |  |  |  |  |  |  |
| ${ }^{48}$ | Hefleme | ${ }^{112354}$ | antrouse | $\stackrel{\square}{4}$ | $\stackrel{\square}{*}$ | trac | Stmentant | sex | ${ }^{101}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{43}$ | cotater nopease | ${ }^{12289} 9$ | samease | $\stackrel{1}{4}$ | $\checkmark$ | месатм | Stanemat | ${ }_{\text {sxx }}$ | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  |  |
| 40 |  | 2ansos | "man | $\stackrel{1}{4}$ | $\stackrel{\rightharpoonup}{*}$ | месам | sar | mas | 101 | nocer | ¢00 |  |  |  |  |  |  |  |
| ${ }_{4}$ | Parreome |  | Antrease | $\stackrel{1}{4}$ | $\checkmark$ | trox | smamatat | 3** | 2.1 | nocer | cos |  |  |  |  |  |  |  |
| ${ }_{4}$ | emememmad somentead | esisese | Alcohol Alkane branched with quaternary carbon\| Dihydroxyl groupl | ‘ | * | nctarm | stometan | Unatam | ${ }^{101}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{43}$ | 2enteomenemen arat | Ss520 | enturamemsemames | . | $\stackrel{ }{ }$ | necamm | smonemat | 9\% | ${ }_{101}$ | nocer | coo |  |  |  |  |  |  |  |
| ${ }^{\text {asa }}$ |  | ${ }^{55520}$ |  | $\checkmark$ | - | wecarm | scmatam | 39\% | 2012 | nocer | coo |  |  |  |  |  |  |  |
| ${ }^{4}$ | Perasmenta | 280328. | va | $\stackrel{1}{4}$ | $\stackrel{\rightharpoonup}{*}$ | us | Stamenth | max | 201 | nocer | ¢ 0 |  |  |  |  |  |  |  |
| ${ }^{46}$ |  | ${ }^{20838}$ | Heme | $\stackrel{1}{4}$ | $\checkmark$ | weatm | Smanemat | 20\% | $20 / 2$ | nocer | cos |  |  |  |  |  |  | $\times$ |
| 4 |  | 233263 | ombene seap | . | $\checkmark$ | месам | Stmanemen | untemm | ${ }_{20}{ }^{2}$ | nocer | coso |  |  |  |  |  |  |  |
| $4{ }^{4}$ |  | 2332683 | Ontasengeap | . | $\checkmark$ | trac | semenemat | Unemam | 120 | nower | coso |  |  |  |  |  |  |  |
| ${ }_{4}{ }^{\text {as }}$ |  | ${ }^{2322} 263$ | ombens eowe | $\checkmark$ | $\stackrel{\rightharpoonup}{*}$ | месатм | stanemath | Unamam | $2{ }^{201}$ | nocer | ¢.0 |  |  |  |  |  |  |  |
| ${ }^{\text {so }}$ |  | ${ }^{2322} 263$ | Ommangeap | , | $\cdots$ | terac | Frassematc | 2388 | ${ }^{201}$ | nocer | ¢๐0 |  |  |  |  |  |  |  |
| ${ }_{51}$ |  | 2989.557 | mea | $\checkmark$ | $\stackrel{\rightharpoonup}{*}$ | $z$ zerr | stmentan | untame | 2 l | nocer | cos 0 |  |  |  |  |  |  |  |
| ${ }_{3}$ |  | Sosas ${ }^{\text {a }}$ | Natemer | 1 | $\checkmark$ | месамм | Stanemat | Unemem | 10.1 | nocer | ¢๐ 0 |  |  |  |  |  |  |  |
| ${ }_{4}{ }^{5}$ |  | ${ }^{\text {ancose }}$ |  | , | , | Enexcenu | noperer | zoos | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  | , |
| ${ }_{48}$ | emomsucue | 25989682 |  | 4 | - | месам | ${ }_{\text {oom }}$ | sem | ${ }^{101} 1$ | woat | ¢ $=0$ |  |  |  |  |  |  |  |
| ${ }_{45}$ | 2aturessasso | ${ }^{20853,35}$ |  | , | $\checkmark$ | месати | ${ }_{\text {dam }}$ | sem | ${ }_{101} 1$ | noour | cos |  |  |  |  |  |  |  |
| 45 | menteemeal | 3,556 | Ommonemeap | . | $\checkmark$ | trac | Smmentath | 203s\% | ${ }_{101}$ | nocar | coo |  |  |  |  |  |  |  |
| ${ }^{47}$ |  | Sess6 |  | 1 | $\cdots$ |  | stamentath | ${ }^{\text {spx }}$ | 1011 | nocer | ¢๐0 |  |  |  |  |  |  |  |
| ${ }_{48}$ |  | ${ }^{36} 5897$ |  | , | , | troc | stmenemin | ssx | ${ }^{201}$ | noct | cos |  |  |  |  |  |  |  |
| 45 |  | 59993-86-1 (98-73-7 reported in NICEATM ALTTOX, which corresponds to 4-tert- |  | $\checkmark$ | * | wearm | Unamm | untam | ${ }^{201}$ | nocr | cos |  |  |  |  |  |  | , |
| ${ }_{40}$ | Emameasasisant | 2Resora | amomen eoup | , | $\stackrel{ }{ }$ | tunceme | Soperav | taox | ${ }^{101}$ | nocer | cos |  |  |  |  |  |  | $\cdots$ |
| ${ }_{61}$ |  | Sesear | Hatrostam | $\checkmark$ | $\checkmark$ | $z z^{\text {zeat }}$ | scmatan | s\% | ${ }_{201} 1$ | nocer | ${ }_{\text {cos }} 0$ |  |  |  |  |  |  |  |
| ${ }_{4}{ }^{4}$ |  | 20, 60 | ostame | $\stackrel{1}{4}$ | $\checkmark$ | месат | Stament | 2 ses | ${ }^{20} 1$ | nocer | ¢=0 |  |  |  |  |  |  |  |
| ${ }^{\text {as }}$ |  | ${ }^{103282713}$ |  | , | , | enamenam | noperav | vespemes | 2012 | nocar | cos |  |  |  |  |  |  | , |
| 48 | mataseal | ${ }_{\text {mines }}$ | 为 | $\checkmark$ | $\cdots$ | troc | stmentin | asx | ${ }^{101}$ | nocer | ¢๐ |  |  |  |  |  |  |  |
| ${ }^{45}$ |  | 1380275 | aneme | 4 | $\stackrel{\rightharpoonup}{*}$ | weatm | Smenemath | som | ${ }^{2012}$ | nocer | cos |  |  |  |  |  |  |  |
| 46 |  | 1330235 | Combeneex | . | $\checkmark$ | мпсам | stanemath | sex | 2012 | nower | coo |  |  |  |  |  |  |  |
| ${ }^{48}$ | Vemenomemexames | 12ent |  | $\stackrel{\square}{4}$ | , | месам | Smanemat | 2093\% | ${ }_{201}$ | nocer | coso |  |  |  |  |  |  |  |
| $4{ }_{4}$ |  | Re2, | meamel | $\pm$ | $\checkmark$ | ws | smanemath | ${ }^{203 \%}$ | $2{ }^{20}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }_{48}$ | Trememextatamemeat | ${ }^{293} 5$ | Hemems | , | $\cdots$ | $\underset{ }{\text { mearm }}$ | Stanemat | 2073\% | ${ }^{201}$ | nocer | ¢๐0 |  |  |  |  |  |  |  |
| 40 | Trememestel | ${ }^{12276}$ |  | $\checkmark$ | - | месам | semamen | 209x | ${ }^{201}$ | nocer | ¢ $=0$ |  |  |  |  |  |  |  |
| ${ }^{a 1}$ |  | 352-87-4 (392-68-7 reported in ECETOC, which corresponds to Ethyl trifluoroacrylate) |  | , | , | trom | smmentan | ${ }_{9 \%}$ | ${ }^{201}$ | noces | coo |  |  |  |  |  |  |  |
| 42 |  | 2 2saesz 3 | vas |  | $\stackrel{\square}{ }$ | месам | smanemath | Unatam | 201 | nocer | cos 0 |  |  |  |  |  |  |  |
| 43 | Treasmeneme | 25858.60 |  | , | $\cdots$ | zetr | meak | ask | ${ }_{2}$ ar | nocat | cos |  |  |  |  |  |  |  |
| ${ }^{88}$ |  | 20.20 | comen | . | - | weatm | Stamath | \%x | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{45}$ | maxaxious | 2023931 | $\mathfrak{c}$ | $\stackrel{ }{ }$ | $\checkmark$ | trro | smanemat | bimaenemate | ${ }^{201}$ | noct | cos |  |  |  |  |  |  |  |
| ${ }^{26}$ | menoracal | ${ }^{\text {aossas }}$ |  | - | $\cdots$ | trro | smantath | unomom | 1012 | noct | cos |  |  |  |  |  |  |  |
| ${ }^{47}$ | Nenemposat | ${ }^{\text {aosasas }}$ |  | ‘ | $\cdots$ | wearm | smmentan | untam | 2012 | woor | cos |  |  |  |  |  |  |  |
| ${ }^{\text {as }}$ | Wensoumes | ${ }^{\text {aosess }}$ \% |  | ‘ | - | wearm | smanemat | unamam | 101 | wort | ${ }^{\text {cos }}$ |  |  |  |  |  |  |  |
| ${ }^{49}$ | wemomeme | ${ }^{\text {aosss }}$ \% |  | ‘ | $\checkmark$ | месам | smanemat | unamam | 101 | wort | ¢ 0 |  |  |  |  |  |  |  |
| ${ }^{30}$ | Varizammeasatesas) | 2ear | Nomemesesem | $\checkmark$ | $\stackrel{ }{ }$ | месамм | т | sask | 1201 | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{681}$ |  | , | van | , | $\stackrel{\square}{ }$ | necamm | semement | ${ }_{\text {ax }}$ | ${ }^{201}$ | nocar | cos |  |  |  |  |  |  |  |
| 48 | Vmmemaner mex | 1278027 | wn | $\checkmark$ | . | месам | Smmatat | ${ }_{\text {ax }}$ | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  |  |

$\underset{\substack{\text { Cosmetics Europe } \\ \text { Draize eye test Reference Database (DRD) } \\ \text { Barroso et al. } 2016}}{\text { 2016 }}$


| Sudy $\begin{aligned} & \text { sumber } \\ & \text { Nut }\end{aligned}$ | Test Chemical Name | casfn | Organic functional froups | $\begin{aligned} & \text { Physical } \\ & \text { Form as } \\ & \text { tested } \end{aligned}$ | $\begin{array}{\|c} \hline \begin{array}{l} \text { Physical Forro } \\ \text { Conifration } \\ \text { e.g, by Mssos } \end{array} \\ (y / N) \end{array}$ |  | commerial ${ }_{\text {coure }}^{\text {Soure }}$ |  | Numberof Studies |  | Severity |  | $\xrightarrow{\text { Passicsitioncene }}$ |  | Specific obserations |  | Comment |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | Cutoffyalues | $\underbrace{\substack{\text { animals }}}_{\text {Number of }}$ | cutofftime | ${ }^{\text {Number of }}$ animas | $\underbrace{}_{\substack{\text { cos } 4 \text { oroter } \\ \text { obsevatiors }}}$ | ${ }_{\text {Numbe of }}^{\substack{\text { Numimals }}}$ |  |  |
| ${ }^{518}$ |  | 23， |  | s | $\cdots$ | месамm | sar | ${ }^{2058}$ | ${ }^{201}$ | noces | ${ }_{\text {cos }}$ |  |  |  |  |  |  |  |
| ${ }^{519}$ |  | ${ }^{23665}$ | 为 | s | $\cdots$ | exneame | ${ }_{\text {cmamamen }}$ | ${ }_{32 \%}$ | ${ }^{201}$ | noout | cos |  |  |  |  |  |  |  |
| ${ }_{50}$ |  | He2s5 | 隹 | s | ， | troc | uname | untem | ${ }^{201}$ | nocer | ¢о 0 |  |  |  |  |  |  | ： |
| ${ }^{32}$ |  | ${ }^{50556}$ | reauses mumedememens | s | $\checkmark$ | ws | stmancat | 9\％ | ${ }_{1}^{101}$ | nocer | $\omega=0$ |  |  |  |  |  |  |  |
| ${ }^{52}$ |  | ${ }^{3121230}$ | comen | s | ， | Enemane | ${ }^{\text {comasamata }}$ | ${ }_{382}$ | ${ }^{2011}$ | nocer | ${ }^{\text {coso }}$ |  |  |  |  |  |  |  |
| ${ }^{53}$ |  | 1353 |  | s | ， | ${ }^{\text {zater }}$ | ${ }_{\text {a }}^{\text {and }}$ | mese | ${ }^{201}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }^{32}$ | 2 2ecesommatie | Sesoss7 | 隹 | 5 | $\checkmark$ | ${ }^{\text {ws }}$ | stanemat | sx | 2 l | nocer | ¢о |  |  |  |  |  |  |  |
| ${ }_{35}$ | 3somemonemameme | $22^{20.49}$ |  | s | ， | месамm | smmatan | ${ }_{\text {s\％}}$ | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }_{56}$ | 3somatapemememome |  | Smamel | s | ＊ | ${ }^{\text {zater }}$ | smmant | ${ }^{9 \%}$ | ${ }^{101}$ | nocat | ${ }^{\text {coso }}$ |  |  |  |  |  |  |  |
| ${ }^{32}$ | －Pyrazole－3－one，2（4－aminophenyl），4－dihyd | ${ }^{30077.78}$ |  | s | $\checkmark$ | weatm | unamam | unamam | ${ }^{1201}$ | nocen | cos |  |  |  |  |  |  | ， |
|  |  |  | 为 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ${ }_{58} 8$ |  | ${ }^{12,38}$ |  | s | ＊ | ${ }_{\text {mearm }}$ | sar | mesx | ${ }^{201}$ | wocr | cos |  |  |  |  |  |  |  |
| ${ }^{52}$ |  | ${ }^{12334}$ |  | s | ＊ | enteram | commame | ${ }_{\text {sask }}$ | ${ }^{101}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }^{30}$ | ${ }^{\text {ancosan mosomamamee }}$ |  |  | s | ＇ | веrox | smanemer | sx | ${ }^{201}$ | noces | cos |  |  |  |  |  |  |  |
| ${ }_{51}$ |  | ${ }^{34}$ |  | s | $\checkmark$ | $z_{\text {zeer }}$ | Somematamems | ${ }^{\text {sex }}$ | ${ }^{101} 1$ | nocr | ¢ $=0$ |  |  |  |  |  |  |  |
| ${ }^{32}$ |  |  |  | s | ＊ | єrпо | smmatath | ${ }_{\text {sex }}$ | 201 | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{33}$ | 2astamenemememe | 2ose 0 | 为 | s | $\checkmark$ |  | stanemat | \％x | 201 | nocer | ¢о |  |  |  |  |  |  |  |
| ${ }^{39}$ | Asommmasomemame | 398312 | \％emel | s | ， | ${ }_{\text {zeer }}$ | smmatath | ${ }_{\text {s\％}}$ | ${ }^{201}$ | nocer | coo |  |  |  |  |  |  |  |
| ${ }_{35}$ | Cobiosamamomememem | ${ }^{238} 874$ |  | s | ＊ | ${ }_{\text {zaser }}$ | smment | Unamam | ${ }^{201}$ | noce | coo |  |  |  |  |  |  |  |
| ${ }_{55}$ | namestm | ${ }^{13314142}$ |  | s | $\checkmark$ | Enneane | smmentat | manmestamata | ${ }^{201}$ | noct | cos |  |  |  |  |  |  |  |
| ${ }_{37}$ | nummimhtaxte | $2{ }^{2} 2$ sess12 | van | s | $\cdots$ | ws | smanemath | resemsate | 120 | nocer | cos |  |  |  |  |  |  |  |
| ${ }_{58}$ | ambismene | Seses4 |  | s | $\checkmark$ | ${ }_{\text {zeser }}$ | uname | Unamam | ${ }^{201}$ | noce | cos |  |  |  |  |  |  | ， |
| ${ }^{39}$ | mataseone | ${ }^{20909306}$ |  | s | $\checkmark$ | emencanm | smmatan | Wanesesmasas | ${ }^{101}$ | nocr | cos |  |  |  |  |  |  |  |
| ${ }_{30}$ | antreene | 20.27 |  | s | $\stackrel{ }{ }$ | us | smanemat | 3\％ |  | nocer | cos |  |  |  |  |  |  |  |
| ${ }_{50}$ |  | 2068s8 |  | s | ， | месат | ${ }_{\text {т }}$ | $\operatorname{sax}^{2}$ | ${ }^{201}$ | nocar | cos |  |  |  |  |  |  |  |
| 59 | beta－（4－Chlorophenoxy）－alpha－（1，1－dimethylethyl）－1H－1，2，4－ triazole－1－ethanol | ${ }^{5218563}$ | and | s | ， | wearm | sar | 20sx | ${ }^{201}$ | nocar | ${ }^{\text {cos }}$ |  |  |  |  |  |  |  |
| ${ }^{56}$ | sastasom | samzas |  | s | $\checkmark$ | weatm | spmanem | Wencestasasa | ${ }^{201}$ | nocar | cos |  |  |  |  |  |  |  |
| sam |  | saoss | wn |  | $\cdots$ | $z z^{\text {zerer }}$ | scmatach | untame |  | nocer | cos |  |  |  |  |  |  |  |
| ss | Catres omemamathe | 3023s5 | Na | s | $\stackrel{ }{ }$ | zuer | Catomestame | ${ }_{\text {ax }}$ | ${ }^{201}$ | nocer | ¢＝0 |  |  |  |  |  |  |  |
| ${ }_{56}$ |  | ${ }_{\text {ssosos24 }}$ |  | s | ， | emencane | smmexat | ${ }^{\text {axx }}$ | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  |  |
| 89 | antomes | ${ }^{221832}$ |  | s | ， | weam | ${ }_{\text {sar }}$ | 2asx | ${ }^{101}$ | nocer | ${ }^{\omega}=$ |  |  |  |  |  |  |  |
| ${ }^{38}$ | Senement | 23882 n／3 |  | s | $*$ | местим | uname | Unemem | ${ }_{101}$ | nocer | cos 0 |  |  |  |  |  | Nocstemememechmmurocasm | ： |
| ${ }_{59} 9$ | Disperse red 60 （Chemical name： 1 －amino－4－hydroxy－ 2 －phenoxy－ 9,10 －anthracenedione） | S8585 |  | s | ， | weatm | smanemin | ustam | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  |  |
| $5{ }_{50}$ | Penvereser |  | \％ | s | $\checkmark$ | месам | Smanemat | ${ }_{\text {on }}$ | ${ }_{201}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }_{55}$ | Pnusisae | ${ }^{276623}$ | van | s | $\stackrel{\rightharpoonup}{*}$ | месам | unmem | Uneam | ${ }^{201}$ | nocat | cos |  |  |  |  |  |  | ： |
| ${ }_{52}$ | Penoressaras | ${ }^{27383972}$ | ${ }_{\text {cosem }}$ | s | ， | weatm | ${ }^{10}$ | ${ }^{\text {max }}$ | ${ }^{201}$ | nocat | ${ }^{\text {cos }}$ |  |  |  |  |  |  |  |


| Sudy | Test Chemical Name | cas n | Organic functional Groups | Physical <br> Form as <br> tested |  |  | Commercial | $\substack{\text { Availale } \\ \text { Putity }}$ | Numberof Studies | ${ }_{\text {und }}^{\substack{\text { usghs } \\ \text { cassifation }}}$ | Severity |  | Divers of cassiferation |  | Speefific observaions |  | Comments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | Cutoff values | $\substack{\text { Numberof } \\ \text { animals }}$ | cutoft time | $\underbrace{\text { a }}_{\substack{\text { Numberof } \\ \text { animas }}}$ |  | $\underbrace{}_{\substack{\text { Number of } \\ \text { animals }}}$ |  |  |
| ${ }^{53}$ | meose | ${ }^{153329.1}$ |  | s | $\cdots$ | zuncane | Ssmanatan | monemesemas | ${ }^{201}$ | woct | ${ }_{\text {cos }}$ |  |  |  |  |  |  |  |
| ${ }_{55}$ | Stome | ${ }^{13802953} 3$ |  | s | * | enticame | ${ }^{\text {ramencomeast }}$ | uname | ${ }^{201}$ | nocat | ${ }^{\text {cos }}$ |  |  |  |  |  |  |  |
| ${ }_{5 s}$ | ane | ${ }^{121823} 3$ at |  | s | * | emetame | smment | monecesemasa | ${ }^{201}$ | "ocat | cos |  |  |  |  |  |  |  |
| ${ }_{56}$ | ma | 1580286 |  | s | * | zuncame | smmatan | smpeasmasas | ${ }^{201}$ | noct | ¢oo |  |  |  |  |  |  |  |
| ${ }_{59}$ | Fuphease | ${ }^{23901057}$ | $\begin{aligned} & \text { Pyridine } \\ & \begin{array}{l} \text { Alkyl halide\| } \\ \text { Aromatic heterocyclic halide। } \\ \text { Aryl halide\| } \\ \text { Benzamide } \end{array} \\ & \hline \end{aligned}$ | s | - | entenam | smmestan | mompestatasa | ${ }^{201}$ | woct | ${ }_{\text {cos }}$ |  |  |  |  |  |  |  |
| ${ }_{\text {ss8 }}$ | Stisomease | 20ese 2 |  | s | $\stackrel{ }{ }$ | ${ }^{\text {w }}$ | smanestan | asm | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  |  |
| ${ }^{35}$ | Heatemombabatesene | 2883984 | 为 | s | $\checkmark$ | wramm | wercemeve | 2ase | ${ }^{101}$ | nocer | coo |  |  |  |  |  |  |  |
| ${ }_{500}$ | Tomampeemame | 20930 |  | s | , | $z z^{\text {zer }}$ | smometen | 200\% | ${ }^{201}$ | noort | coo |  |  |  |  |  |  |  |
| ${ }_{561}$ |  | 3077 ${ }^{\text {seg }} 7$ | $\begin{aligned} & \text { Aromatic amine\| } \\ & \text { Aryl\| } \\ & \text { Carboxylic acid ester \| } \\ & \text { Ketone\| } \end{aligned}$ | s | * | enememe | smoment | $\operatorname{sas}^{8}$ | ${ }^{201} 1$ | nocer | coo |  |  |  |  |  |  |  |
| 532 |  | \%, |  | s | $\cdots$ | месам | smanemen | 209\% | ${ }^{201}$ | Nocer | cos |  |  |  |  |  |  |  |
| ${ }_{56}$ | manammate | ${ }^{232935}$ | Somemescesemer | s | $\checkmark$ | terec | comasment | seas | $2{ }^{201}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }_{\text {sfe }}$ |  | seorars |  | s | $\checkmark$ | comenstame | nomerear | mesx | ${ }^{201}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }_{35} 5$ | thenosesie | ${ }^{28,24}$ | Stameme | , | $\checkmark$ | мпеам | smanemen | asem | ${ }_{201}$ | Nocat | cos |  |  |  |  |  |  |  |
| s6 | mentuaseme | 8339 | and | s | $\checkmark$ | ws | smanetarn | 2ss3 | 1.12 | nost | cos |  |  |  |  |  |  |  |
| ${ }_{58}$ |  | (12787 |  | s | , | $z{ }_{\text {zase }}$ | Esassisamac | som | ${ }^{2011}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }_{58}$ | menemere | 10385 | Amme | s | $\cdots$ | $z{ }_{\text {zeer }}$ | smanemat | asa | 201 | nocat | cos |  |  |  |  |  |  |  |
| ${ }_{59}$ | peemene |  |  | s | , | zerer | smmenem | ${ }^{\text {anm }}$ | ${ }^{201} 1$ | nocat | cos |  |  |  |  |  |  |  |
| 50 | Dosasmememamemae | Leossar | Fosgesser | S | $\checkmark$ | tero | smmatern | sex | ${ }_{201}$ | noct | cos |  |  |  |  |  |  |  |
| 5 | Pasasast | Sresse | van | s | $\checkmark$ | zeer | uname | Uneam |  | nocer | cos |  |  |  |  |  |  |  |
| $5{ }_{5}$ | Sticestanem | Sesasa | wa | 5 | $\checkmark$ | месим | Smanestan | 39\% | ${ }_{201}$ | Nocat | cos |  |  |  |  |  |  |  |
| ${ }^{573}$ |  | ${ }^{73823.84}$ | vas | s | $\checkmark$ | месам | Smanters | 2 as | ${ }^{201}$ | nocar | coo |  |  |  |  |  | Lomesese |  |
| ${ }_{5} 5$ |  | 2, 3 | and | $s$ | $\stackrel{\square}{ }$ | месам | Smmatar | ${ }^{9 \times 3}$ | ${ }^{2012}$ | nocat | cos |  |  |  |  |  |  |  |
| , | matememe | ${ }^{3 \times 850}$ | \%en | s | $\stackrel{\square}{*}$ | $\underset{\substack{\text { zuar } \\ \text { zuer }}}{ }$ | Smantarat | bay |  | Nocar | $\stackrel{\text { cos }}{\text { cos }}$ |  |  |  |  |  |  |  |
| $\stackrel{56}{5 \%}$ |  |  |  | s | $\stackrel{ }{ }$ | ${ }_{\text {zaur }}^{\text {zuer }}$ | ${ }_{\text {uname }}^{\text {ra }}$ | uname | ${ }_{\text {a }}$ | $\underset{\text { nocer }}{\text { noter }}$ | ${ }_{\text {cos }}^{0}$ |  |  |  |  |  |  | , |
| ${ }_{58}$ | Hestasomemem | ${ }^{3275153} 3$ |  | s | . | enemam | smometan | smprestesasa | ${ }^{201}$ | noces | ¢ 00 |  |  |  |  |  |  |  |
| ${ }^{59}$ |  | ${ }^{22980}$ |  | s | $\checkmark$ | emmenam | roperarer | ${ }^{308}$ | ${ }^{201}$ | woor | cos |  |  |  |  |  |  |  |
| ${ }_{\text {sos }}$ |  | 0203 |  | s | $\checkmark$ | emmenam | Ssmatactin | ${ }^{2358}$ | ${ }^{101}$ | nocat | cos |  |  |  |  |  |  |  |
| ${ }^{\text {sen }}$ | 2omenomenemere | ${ }^{47724}$ |  | unam | $\cdots$ | ${ }^{\text {zeer }}$ | spmatach | ${ }^{838}$ | ${ }^{201}$ | noces | cos |  |  |  |  |  |  |  |
| sms |  | Samsssas | ${ }^{\text {man }}$ | Unamem | $\cdots$ |  |  | Unemam | ${ }_{\text {a }}$ | Nocer | ${ }_{\text {cos }}$ |  |  |  |  |  |  | $\cdots$ |
| ${ }^{\text {sse }}$ |  | Sasss 3 | ann | uname |  | месам | uname | unemem | ${ }_{2}{ }^{101}$ | nocer | $\cdots=0$ |  |  |  |  |  |  |  |
| ${ }_{\text {ss }}$ | Corimememesame |  | Cotanosase | unama | * | zuer | uname | unhem | ${ }^{2011}$ | nocar | cos |  |  |  |  |  |  | , |
| ${ }_{56}$ | Soritamas | Serses | comem | uname | $\cdots$ | $z{ }_{\text {zer }}$ | uname | Unemem | 2 ar | nocar | cos |  |  |  |  |  |  | ' |
| ${ }_{38}$ |  | ${ }^{20553.46}$ |  | uname | $*$ | $z$ zerr | uname | uneme | ${ }^{201}$ | nocer | cos |  |  |  |  |  |  | , |
| ${ }_{\text {sse }}$ | 20 | 853, ${ }^{\text {a }}$ | Stamesces | - | $\checkmark$ | єтес | Smantern | ${ }_{388}$ | 201 | somm | ${ }_{\text {comen } 2 \text { atan mene } 22}$ | \%6, 6 E |  | atherat |  |  | Semen | $\times$ |
| ${ }^{\text {ss }}$ | sosemasalarel | ${ }^{2888}$ | , ctasem | , | ' | zamer | smonetan | 298\% | 2012 | ${ }_{\substack{\text { camm } \\ \text { cami) }}}^{\text {sam }}$ |  | 38,23 |  | ${ }^{13}$ |  |  |  | $\times$ |
| ${ }_{50}$ |  | 30238.4 | Nomen | $\checkmark$ | * | wearm | smomest | busaexseste | ${ }^{301}$ | ${ }_{\text {come }}^{\text {came }}$ (eat) | ${ }^{\text {comene } 21}$ | 3/3 |  | ${ }^{1 / 3}$ |  |  |  |  |
| $5{ }_{5}$ |  | ${ }^{\text {nosaste }}$ | deamel |  | * | месамм | smoneman | ${ }^{\text {sax }}$ | ${ }^{1011}$ | ${ }_{\substack{\text { comem } \\ \text { camid }}}$ | cramen | ${ }^{3 / 3}$ |  | ${ }^{1 / 3}$ |  |  |  | $\times$ |
| 32 | Doberenemame | 7rsp | comememe | ! | - | месам | smantan | ${ }_{30}$ | 2011 | ${ }_{\text {comem }}^{\text {commid }}$ |  | $3 / 3,3,3 / 3$ |  | $23^{3}$ |  |  |  | $\times$ |
| ${ }^{53}$ | Sutatemens | Oness, |  | , | , | мпйm | momen | ${ }^{1000}$ | ${ }^{201}$ | ${ }_{\substack{\text { comm } \\ \text { camil }}}$ |  |  |  |  |  |  |  | $\times$ |
| ${ }_{5} 5$ |  | Poiss, | andem | ' | * | месам | uname | uname | ${ }^{2011}$ | ${ }_{\substack{\text { comm } \\ \text { cami) }}}$ |  |  |  |  |  |  |  | $\times$ |


| Study | Test Chemical Name | casfn | Organic functional froups | $\begin{aligned} & \text { Physisal } \\ & \text { Sompas } \\ & \text { feested } \\ & \text { teted } \end{aligned}$ |  | ${ }_{\substack{\text { Data } \\ \text { soure }}}^{\text {a }}$ |  | ${ }^{\substack{\text { avalable } \\ \text { Pufity }}}$ | Numberof Studies |  | Severity |  | $\frac{\text { cassifation }}{\text { Pessisence }}$ |  | Specific obserations |  | Comments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | cutoffvalues | ${ }^{\substack{\text { Number of } \\ \text { animals }}}$ | cutoft time |  |  | ate |  |  |
| ${ }^{55}$ | （xamomet | 52275 |  | s | $\cdots$ | weatm | smmatath | $9 \%$ | ${ }^{1001}$ | ${ }_{\text {comm }}^{\text {came }}$ |  | 56．46 |  | ${ }_{5}^{56,46582]}$ |  |  |  | $\times$ |
| ${ }_{56}$ | somentume | Notam |  | Unamem | ＊ | zater | Unamem | Som | 2 |  |  | 33，3／3 | comesor： comemesor | 3／33 |  |  |  | $\times$ |
| ${ }^{39}$ |  |  | wn | uname | ＊ | ${ }^{\text {zaber }}$ | uname | unamem | ${ }^{101}$ |  |  | 213，23 |  | 2 $21 / 2 / 3,13$ |  |  |  |  |
| \％ |  | ，omom | wn | uname | $*$ | месам | Uname | Unemem | ${ }_{2} 121$ | （cami | coment | 3／3 |  | 23， 23,13 |  |  | Suthemmeneto |  |
| ${ }_{59}$ | Nocosenaseresesm | ${ }^{\text {and }}$ | amand | ， | ， | месим |  | unte | ${ }_{101}$ | ${ }_{\text {cosemambemem }}$ |  | з3，3］ | comemor conpmom | \％ 3,13 |  |  | Semen |  |
| ${ }^{80}$ |  | 20， 2 seo |  | $\stackrel{1}{4}$ | $\checkmark$ | wearm | $\begin{array}{\|c\|} \hline \text { Sigma-Aldrich (for alpha- } \\ \text { Hexyl cinnamic aldehyde); } \\ \text { Fisher Scientific (for Alcohol } \\ \text { SDA 39C) } \\ \hline \end{array}$ | ${ }^{235}$ | ${ }^{201}$ | ${ }^{\text {cheramamben }}$ | Compenazicmemen | ${ }_{33} 323$ |  | ${ }^{2 / 323}$ |  |  |  | $\times$ |
| ${ }^{\text {on }}$ |  | 2303219 |  | ， | ＊ | месам | ssmancan | untam | ${ }^{101}$ |  |  | ${ }_{\text {\％6／8，} 6,5 \%}$ |  | OF／6595\％ |  |  | sumpemsmesmor | $\times$ |
| ${ }_{60} 8$ | Emandemensata） | ${ }^{\text {sut，}}$ | neame | ， | ＊ | wearm | ssmmatat | sens | ast | ${ }^{\text {cosemamen }}$ | ${ }_{\text {comene } 21}$ | ${ }^{2 / 3}$ |  | $23,1 / 3$ |  |  |  | $\times$ |
| ${ }^{\text {®s }}$ | Formeasal | sosos |  | － | ， | teroc | smmentan | ${ }^{28}$ | ：at | ${ }^{\text {cosemamben }}$ |  | \％／3，$/ 2$ |  | u／2， |  |  |  | $\times$ |
| ${ }^{\text {os }}$ |  | 9036－19－5 or 9002－93－1（9016－ 45－9 reported in NICEATM ALTTOX，which is wrong） |  | － | $\checkmark$ | месам | smancant | Unamam | ${ }^{101} 1$ |  |  | ${ }_{\text {\％6 } 6856,56}$ |  |  |  |  | monemamesom | $\times$ |
| ${ }^{\text {as }}$ |  | Selen | comel | ， | ， | месам | Scmeneme | unama | ${ }^{201}$ | ${ }^{\text {cosemamen }}$ |  | 66， 66 |  | ${ }_{66,65956}$ |  |  | sankemamesomr | $\times$ |
| ${ }_{\text {af }}$ |  |  | comen | $\checkmark$ | $\checkmark$ | месам | sar | masx | ${ }^{201}$ | ${ }_{\text {cosem }}$ |  | ${ }_{31323823}$ | ${ }_{\text {copesor }}$ | ${ }_{3}^{3}$ |  |  |  | $\times$ |
| ${ }^{80}$ |  | ${ }^{3392828}$ | 何 | $\checkmark$ | ， | ${ }^{\text {zuer }}$ | Scmentat | ${ }^{\text {amam }}$ | ${ }^{201}$ | ${ }^{\text {cosemamen }}$ |  | ${ }_{3}^{3 / 3,3823}$ |  | ／$/ 1 / 3,3 / 3 / 3$ |  |  |  | $\times$ |
| ${ }^{\text {as }}$ | Sen |  |  | ， | ＊ | zerr | Fouosem | toos | ${ }^{\text {a }}$ a |  |  | $3 / 3,3$ | ${ }^{\text {copemot }}$ Capememor | 23823 |  |  |  | $\times$ |
| ${ }^{69}$ |  | neas 31． | aneme | ＇ | ＊ | zerr | uname | untem | ${ }^{201}$ |  | Conleman | $5 \%$ | Conpemor | ${ }_{56}$ |  |  | Smonememasemor | $\times$ |
| ${ }_{6}$ |  | soor26 |  | cememe | r | weatm | smomentar | 50x | ${ }^{201}$ |  |  | з323］ | conemor，comem | з3，23 |  |  |  | $\times$ |
| ${ }^{\text {si }}$ | mmomenethat |  | wa | s | $\checkmark$ | man | smancant | ${ }^{\text {sex }}$ | ${ }^{101} 1$ | cememen |  | ster | ${ }_{\text {copesor }}^{\text {copesesor }}$ \％ | ${ }^{\text {ש／F\％}} 6$ |  |  |  |  |
| ${ }_{6} 12$ | atamememesemer | ner | men | s | $*$ | месам | uname | Unamom | ${ }^{101}$ |  | Colnemene： | ${ }_{31} 23$ | Conpenof：coeso 9 | 23，13 |  |  |  | $\times$ |
| ${ }^{\circ 13}$ | nenatatame | ${ }^{323} 58$ | comme | s | － | ${ }^{\text {zaner }}$ | smantant | ${ }^{388}$ | ${ }^{201}$ | ${ }^{\text {cosemaminem }}$ |  | $3_{3,3,3,3 / 3}$ |  | 3／3， 3 |  |  | Smorembesemer | $\times$ |
| ${ }^{14}$ | Omenemasamemasar） | ssass |  | s | ＊ | zeer | sememant | som | ${ }^{2012}$ | ${ }^{\text {cosemammen }}$ |  | ${ }_{31 / 383 / 3}$ |  | ${ }_{38}^{2 / 3,3 / 3}$ |  |  | samenemasesom | $\times$ |
| ${ }^{\text {as }}$ |  | ssas |  | s | ＊ | месам | ssmentat | asx | ${ }^{2012}$ | ${ }^{\text {coremam }}$ | $\mathrm{comanaz}^{1}$ | ${ }^{2 / 3}$ |  | ${ }_{23}^{23,23,13}$ |  |  |  | $\times$ |
| ${ }^{\circ 16}$ | Sasamumumbabememen | ${ }^{122123}$ | Namel | s | ＊ | wearm | smmament | som |  | ${ }^{\text {crasemamben }}$ | $\mathrm{conman}^{\text {c }}$ | ${ }^{2 / 3}$ | conpesor | 13 |  |  |  |  |
| ${ }^{17}$ |  | zens， | wn | s | ＊ | merr | smomenem | ${ }^{2}$ mososs | ${ }^{201}$ | ${ }^{\text {chencmammen }}$ |  | зазаза |  |  |  |  |  | $\times$ |
| ${ }_{\text {eis }}$ |  | notam | van | s | ＊ | мпеarm | uname | untame | 1 ar1 |  | ${ }_{\text {comman }}$ | ${ }^{2 / 3}$ |  | 2／3， 3 2／3 |  |  |  | $\times$ |
| ${ }^{\text {a }}$ | 12epasmeatasememe | 259.868 |  | － | ＊ | wearm | spmestant | ${ }^{93}$ | ${ }^{101} 1$ | ${ }^{\text {cosemement }}$ |  | \％6．96 |  |  |  |  | smanememesems | $\times$ |
| 80 |  | Sonsso |  | ＇ | 「 | ${ }^{\text {zant }}$ | sotam | ${ }^{3} 51.100$ | ${ }^{1011}$ |  | ${ }^{\text {comama } 21}$ | ${ }^{2 / 3}$ |  |  |  |  |  | $\times$ |
| ${ }^{62}$ | ${ }^{23} 5$ | ${ }^{\text {\％} 6139}$ |  | ， | $\checkmark$ | месим | Scmenath | ${ }_{\text {as }}$ | 1201 | cesememe |  | \％6，56 |  |  |  |  | Sumbememesems | $\times$ |
| ${ }^{62}$ | Scrobememimeman | 6essil2 |  | － | ＊ | zant | ssmentam | ax | ${ }^{1011}$ | （sazectar） |  | 3／3，3 |  |  |  |  | samoremimesoms |  |
| ${ }^{23}$ |  | ${ }^{2200012}$ |  | ＇ | $\stackrel{ }{ }$ | ${ }^{\text {zuef }}$ | Smantant | momm max meam | ${ }^{201}$ | （amememe |  | 213,23 |  |  |  |  | sumatemamemes | $\times$ |
| ${ }^{68}$ | Wentramemeate | Sis，70 | 为 | $\square$ | $\stackrel{\rightharpoonup}{*}$ | жесам | ssmanctar | \％\％ | ${ }^{2011}$ | cotecter | Comenetinemex |  |  |  |  |  | sumatememesme | $\times$ |
| ${ }^{25}$ | Eastuesatre |  |  | $\checkmark$ | $\stackrel{ }{ }$ | trace | Smanemat | ${ }_{9 \%}$ | ${ }^{2013}$ | cosmeme |  | 66，96 |  |  |  |  | samenemastem 3 | $\times$ |
| ${ }_{6}^{68}$ |  | ${ }_{\text {mex }}$ |  | ！ | r |  | ssmatath | ${ }^{\text {Unasmm }}$ | ${ }_{2012}^{1201}$ |  | Car）ment | ${ }_{\text {a／5 }}^{4}$ |  |  |  |  |  | $\times$ |
| ${ }^{\circ 8}$ | 何 | 20， | come | $\stackrel{\square}{4}$ | $\stackrel{\square}{*}$ | ${ }^{\text {meamm }}$ |  | momemm | ${ }_{\text {a }}^{2012}$ | （tazectiv |  | ${ }_{6}$ |  |  |  |  |  |  |
| ${ }^{\circ}$ | 12，20ememeal | nisers |  | － | $\stackrel{\square}{ }$ | $z_{\text {zaer }}$ | smenement | ${ }_{\text {sex }}$ | 1 ar |  | Comene 2 ifmem 21 | ${ }_{313}$ |  |  |  |  | surusemmeesem | $\times$ |
| ${ }^{80}$ |  | 2032．5 |  | s | ， | ${ }_{\text {zerer }}$ | smenemath | \％x\％ | ${ }^{2011}$ | （amememe |  | ${ }_{31,33}$ |  |  |  |  | Sumiememeesems | $\times$ |
| ${ }^{61}$ | swempame | ${ }^{200683} 7$ |  | s | $\checkmark$ | месам | sematat | 230 | 1201 | cemememe | ${ }_{\text {comene }}$ | \％ |  |  |  |  | Stanememesem | $\times$ |
| ${ }^{6} 2$ | Comemamememmos． | 2 |  | s | ， | zerr | smmenath | 20s8 | ${ }^{101} 1$ |  |  | $33_{3}$ |  |  |  |  |  | $\times$ |
| ${ }^{\text {as }}$ | mosomeatead |  | Sme | s | ， | zaer | stmaman | sase | 2 ar | （ememan |  | 3／338273 |  |  |  |  |  | $\times$ |
| ${ }^{\text {ss }}$ | Lesemesed | sems | and | s | $\checkmark$ | trace zear | smanemath | asx | 2013 |  | Comenexitimeme 21 | 218373 |  |  |  |  |  | $\times$ |
| ${ }^{\text {as }}$ | LSumamesana | ${ }^{23} 5$ |  | s | r | ${ }_{\text {zaer }}$ | Smmemat | 2mx | ${ }^{2011}$ | cesememe |  | $21 / 323,3 / 3$ |  |  |  |  | Sumbememedem 3 | $\times$ |
| ${ }_{\text {as }}$ | wolemeste | ${ }^{3220}$ | come | s | $\stackrel{ }{ }$ | $z_{\text {zare }}$ | Smmatath | sass | ${ }^{2011}$ | （sazemeat） |  | $33_{3} 323$ |  |  |  |  | Sumiemameem 3 | $\times$ |
| ${ }^{81}$ | 2asambeomenatreen | ${ }^{\text {Lasess } 5_{1}}$ | van | s | $\stackrel{\square}{ }$ | $z_{\text {zaser }}$ | smanemat | ${ }^{20958}$ | 201 | （samemem） | ${ }_{\text {comen } 21}$ | ${ }^{23}$ |  |  |  |  | Suatememedem ${ }^{\text {a }}$ | $\times$ |
| ${ }_{68}$ |  | ${ }^{132} 5662$ | van | s | $\checkmark$ | zuer | Stamath | 23\％ | ${ }^{2013}$ | cesememe | comene 1 | ${ }_{3 /}$ |  |  |  |  | Sumbememedesos | $\times$ |
| ${ }_{69}$ | 为 | ${ }^{33358383}$ | wa | s | ＊ | мсати | uname | unemam | ${ }^{101}$ | （cazememe |  |  |  |  |  |  |  | $\times$ |

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