

I U C L I D

D a t a s e t

Existing Chemical Substance ID: 125-12-2
CAS No. 125-12-2
EINECS Name exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acetate
EINECS No. 204-727-6
Molecular Formula C12H20O2

Dataset created by: EUROPEAN COMMISSION - European Chemicals Bureau

This dossier is a compilation based on data reported by the European Chemicals Industry following 'Council Regulation (EEC) No. 793/93 on the Evaluation and Control of the Risks of Existing Substances'. All (non-confidential) information from the single datasets, submitted in the IUCLID/HEDSET format by individual companies, was integrated to create this document.

The data have not undergone any evaluation by the European Commission.

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1.0.1 OECD and Company Information

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Name: International Flavors & Fragrances
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Country: Germany
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1.0.2 Location of Production Site

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1.0.3 Identity of Recipients

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1.1 General Substance Information

Substance type: element
Physical status: liquid

Substance type: organic
Physical status: liquid

1.1.1 Spectra

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1.2 Synonyms

2-Camphanlyl acetate

Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

2-exo-bornanylyl acetate

Source: Hoechst AG Frankfurt/Main

2-Exo-bornanyl acetate

Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Bicyclo(2.2.1)-1,7,7-trimethylheptanyl-2-acetate

Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Bicyclo(2.2.1)heptan-2-ol, 1,7,7-trimethyl-, acetat

Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Bicyclo(2.2.1)heptan-2-ol, 1,7,7-trimethyl-, acetat; Isobornylacetat

Source: Hoechst AG Frankfurt/Main

Bicyclo(2.2.1)heptan-2-ol, 1,7,7-trimethyl-, acetate, exo- (9CI)

Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Bornyl acetate

Source: Givaudan Roure S.p.A. Milano

Essigsaeure-1,7,7-trimethylbicyclo[2.2.1]heptyl-2-ester

Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Essigsaeureisobornylester

Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Exocamphanyl-2-acetat

Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Isoborneol, acetate (6CI, 8CI)

Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

isobornyl acetate

Source: International Flavors & Fragrances Benicarlo (Castellon)

Isobornyl acetate

Source: Quest International Ashford, Kent
Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Isobornylacetat

Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Isobornylacetat extra

Source: Hoechst AG Frankfurt/Main
 Hoechst AG Frankfurt/Main
 Clariant GmbH Frankfurt am Main

isobornylacetate

Source: IFF Tilburg

Pichtosin

Source: Hoechst AG Frankfurt/Main
 Hoechst AG Frankfurt/Main
 Clariant GmbH Frankfurt am Main

Pichtosine

Source: Hoechst AG Frankfurt/Main
 Hoechst AG Frankfurt/Main
 Clariant GmbH Frankfurt am Main

1.3 Impurities

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1.4 Additives

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1.5 Quantity

Quantity 10 000 - 50 000 tonnes

1.6.1 Labelling

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1.6.2 Classification

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1.7 Use Pattern

Type: type
Category: Use resulting in inclusion into or onto matrix

Type: type
Category: Wide dispersive use

Type: industrial
Category: Chemical industry: used in synthesis

Type: industrial
Category: Personal and domestic use

Type: use
Category: Cosmetics

Type: use
Category: Intermediates

Type: use
Category: Odour agents

1.7.1 Technology Production/Use

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1.8 Occupational Exposure Limit Values

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1.9 Source of Exposure

Remark: Exposure of the general population due to use in consumer products such as: cosmetics, household and laundry cleaning products or airfreshener systems which are fragranced. Such materials may contain low levels of this substance.

Source: IFF Tilburg

Remark: Exposure of the general population due to use in consumer products such as: cosmetics, household and laundry cleaning products or airfreshener systems which are fragranced. Such products may contain low levels of this substance.

Source: International Flavors & Fragrances Benicarolo (Castellon)

Remark: Substance is a fragrance ingredient which is used in fragrance compositions at a level of typically a few percent. These fragrance compositions are used to perfume a wide variety of consumer products. The level of the fragrance ingredient in the consumer product is typically a few hundreds ppm.

Source: Quest International Ashford, Kent

1.10.1 Recommendations/Precautionary Measures

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1.10.2 Emergency Measures

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1.11 Packaging

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1.12 Possib. of Rendering Subst. Harmless

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1.13 Statements Concerning Waste

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1.14.1 Water Pollution

Classified by: KBWS (DE)
Labelled by:
Class of danger: 1 (weakly water polluting)
Remark: Kenn-Nr. 1273 (Wassergefährdungsklasse - WGK)
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Test substance: Essigsäureisobornylester (1) (2)

Classified by: other: Hoechst AG
Labelled by: other: Hoechst AG
Class of danger: 1 (weakly water polluting)
Source: Hoechst AG Frankfurt/Main (3) (2)

1.14.2 Major Accident Hazards

-

1.14.3 Air Pollution

Classified by: TA-Luft (DE)
Labelled by:
Number: 3.1.7 (organic substances)
Class of danger: III
Remark: Selbsteinstufung
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (4) (5) (6)

Classified by: other: Hoechst AG
Labelled by: other: Hoechst AG
Number: 3.1.7 (organic substances)
Class of danger: III
Source: Hoechst AG Frankfurt/Main (4)

1.15 Additional Remarks

Remark: mode transport maritime; environ 14 tonnes tous les 1 ou 2
mois par container
Source: ADRIAN SA Marseille

1.16 Last Literature Search

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1.17 Reviews

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1.18 Listings e.g. Chemical Inventories

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2.1 Melting Point

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2.2 Boiling Point

Value: 102 - 103 degree C at 17 hPa
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (7)

Value: ca. 215 degree C at 1013 hPa
Method: other: DIN 53171
Remark: Min. 95 % (v(v))
Source: Hoechst AG Frankfurt/Main (3) (8)

Value: ca. 215 degree C at 1013 hPa
Method: other: DIN 53171
Remark: Min. 95 % (v(v))
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (5) (6)

Value:
Source: WEISSMEER BALTISCHE, Import-Export GmbH Hamburg

2.3 Density

Type: density
Value: = .98 g/cm³ at 20 degree C
Method: other: DIN 51757
Source: Hoechst AG Frankfurt/Main (3) (8)

Type: density
Value: = .98 g/cm³ at 20 degree C
Method: other: DIN 51757
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (6)

Type: relative density
Value: ca. .988 at 20 degree C
Method: other
GLP: no data
Source: WEISSMEER BALTISCHE, Import-Export GmbH Hamburg

2.3.1 Granulometry

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2.4 Vapour Pressure

Value: = .13 hPa at 20 degree C
Source: Hoechst AG Frankfurt/Main (8)

Value: = .13 hPa at 20 degree C
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (6)

Value: = 13.3 hPa at 100 degree C
Source: Hoechst AG Frankfurt/Main (8)

Value: = 13.3 hPa at 100 degree C
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (6)

2.5 Partition Coefficient

log Pow: = 3.5
Method: other (calculated): Medchem Software CLOGP3, Version 3.42,
Pomona College, Clermont CA
Year: 1986
Source: Hoechst AG Frankfurt/Main (4)

log Pow: = 3.86
Method: other (calculated): EPIWIN Version 2.0b, Syracuse Research
Corporation, NY 13210, 1996
Year:
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Reliability: (2) valid with restrictions
Berechnungsmethode anerkannt (9)

2.6.1 Water Solubility

Value: < 1 g/l at 20 degree C
Source: Hoechst AG Frankfurt/Main (8)

Value: ca. 160 mg/l at 20 degree C
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (6)

2.6.2 Surface Tension

-

2.7 Flash Point

Value: = 85 degree C
Type: open cup
Method: other: DIN 51584
Year:
Source: Hoechst AG Frankfurt/Main (3) (8)

Value: = 85 degree C
Type: open cup
Method: other: DIN 51584
Year:
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (5) (6)

Value: ca. 88 degree C
Type: closed cup
Method: other
Year:
GLP: no data
Source: WEISSMEER BALTISCHE, Import-Export GmbH Hamburg

2.8 Auto Flammability

Value: > 250 degree C
Method: other
GLP: no data
Source: WEISSMEER BALTISCHE, Import-Export GmbH Hamburg

Value: = 430 degree C
Method: other: DIN 51794
Remark: Zuendtemperatur
Source: Hoechst AG Frankfurt/Main (3) (8)

Value: = 430 degree C
Method: other: DIN 51794
Remark: Zuendtemperatur
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (5) (6)

2.9 Flammability

Result: other: bei Raumtemperatur schwer entflammbar
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (8)

2.10 Explosive Properties

Result: other
Remark: Isobornylacetat-Dämpfe können mit Luft (über 85 Grad C)
explosionsfähige Gemische bilden.
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

(5)

2.11 Oxidizing Properties

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2.12 Additional Remarks

Remark: Dynamische Viskositaet bei 20 Grad C: 8.5 mPas
(Methode: DIN 51550)

Source: Hoechst AG Frankfurt/Main

(3) (8)

Remark: Dynamische Viskositaet bei 20 Grad C: 8.5 mPa*s
(Methode: DIN 51550)

Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

(5) (6)

3.1.1 Photodegradation

Type: air
INDIRECT PHOTOLYSIS
Sensitizer: OH
Conc. of sens.: 500000 molecule/cm3
Rate constant: = .000000000000849 cm3/(molecule * sec)
Degradation: ca. 50 % after 1.9 day
Method: other (calculated): Atkinson
Year: 1988 GLP:
Test substance:
Source: Hoechst AG Frankfurt/Main

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Type: air
INDIRECT PHOTOLYSIS
Sensitizer: OH
Conc. of sens.: 500000 molecule/cm3
Rate constant: = .0000000000008573 cm3/(molecule * sec)
Degradation: ca. 50 % after 44.9 hour(s)
Method: other (calculated): EPIWIN Version 2.0b, Syracuse Research Corporation, NY 13210, 1996
Year: GLP:
Test substance:
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Reliability: (2) valid with restrictions
Berechnungsmethode anerkannt

(9)

Type: air
INDIRECT PHOTOLYSIS
Sensitizer: OH
Conc. of sens.: 1500000 molecule/cm3
Rate constant: = .00000000000086724 cm3/(molecule * sec)
Degradation: ca. 50 % after 14.8 hour(s)
Method: other (calculated): ATMOSPHERIC OXIDATION PROGRAMM, Version 1.51 vom 13.03.94, Syracuse Research Corporation, nach Atkinson)1987 und 1988)
Year: GLP:
Test substance:
Source: Hoechst AG Frankfurt/Main

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3.1.2 Stability in Water

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3.1.3 Stability in Soil

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3.2 Monitoring Data (Environment)

Type of measurement: background concentration
Medium: biota
Remark: Vorkommen:
Natuerlich in Nadeln der Douglas Tanne (0.37 mg
Isobornylacetat/g Nadel)
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

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3.3.1 Transport between Environmental Compartments

Type: adsorption
Media: water - soil
Method: other: EPIWIN Version 2.0b, Syracuse Research Corporation, NY
13210, 1996
Year:
Result: Soil Sorption Coeffizient:
Koc: 507.3
Log Koc: 2.705
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Reliability: (2) valid with restrictions
Berechnungsmethode anerkannt

(9)

Type: volatility
Media: water - air
Method: other: EPIWIN Version 2.0b, Syracuse Research Corporation, NY
13210, 1996
Year:
Result: Volatilization from Water:
- Henry Law Constant (25 °C): 9.52E-005 atm-m3/mole
(estimated by Group SAR Method)
- Half-Life from Model River: 17.02 hours
- Half-Life from Model Lake: 227.1 hours
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Reliability: (2) valid with restrictions
Berechnungsmethode anerkannt

(9)

3.3.2 Distribution

-

3.4 Mode of Degradation in Actual Use

-

3.5 Biodegradation

Type: aerobic
Inoculum: activated sludge, industrial, non-adapted
Method: OECD Guide-line 302 B "Inherent biodegradability: Modified Zahn-Wellens Test"
Year: 1979 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: CSB-Eliminierung nach 10 d: >90 %, ca. 50 % davon durch nichtbiologische Vorgaenge
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Test condition: Versuchsdurchfuehrung nach dem zum Versuchszeitpunkt gueltigen Vorschriften

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3.6 BOD5, COD or BOD5/COD Ratio

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3.7 Bioaccumulation

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3.8 Additional Remarks

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AQUATIC ORGANISMS**4.1 Acute/Prolonged Toxicity to Fish**

Type: static
Species: Brachydanio rerio (Fish, fresh water)
Exposure period: 96 hour(s)
Unit: mg/l **Analytical monitoring:** yes
LC0: = 10
LC50: 10 - 18
LC100: = 25
Method: OECD Guide-line 203 "Fish, Acute Toxicity Test"
Year: 1988 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: Kontrolle des Substanzgehaltes, im Mittel waehrend der
Versuchsdauer >80 %
Source: Hoechst AG Frankfurt/Main
Test substance: Isobornylacetat extra

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Type: static
Species: Brachydanio rerio (Fish, fresh water)
Exposure period: 96 hour(s)
Unit: mg/l **Analytical monitoring:** yes
LC0: = 10
LC50: 10 - 18
LC100: = 25
Method: OECD Guide-line 203 "Fish, Acute Toxicity Test"
Year: 1988 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Test substance: Isobornylacetat extra

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4.2 Acute Toxicity to Aquatic Invertebrates

-

4.3 Toxicity to Aquatic Plants e.g. Algae

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4.4 Toxicity to Microorganisms e.g. Bacteria

Type: aquatic
Species: Bacillus thuringiensis (Bacteria)
Exposure period:
Unit: mg/l **Analytical monitoring:** no data
EC100 : <= 40
Method: other: Wachstumshemmtest
Year: **GLP:** no data
Test substance: no data
Remark: Keine Angabe der Testdauer
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

(11)

Type: aquatic
Species: Escherichia coli (Bacteria)
Exposure period:
Unit: **Analytical monitoring:** no data
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: Antimikrobielle Wirkung:
8 ul Isobornylacetat/Platte wirkten nicht wachstumshemmend
(Hemmzone: <=7 mm); keine weiteren Angaben
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

(14)

Type: aquatic
Species: Pseudomonas aeruginosa (Bacteria)
Exposure period:
Unit: **Analytical monitoring:** no data
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: Antimikrobielle Wirkung:
8 ul Isobornylacetat/Platte wirkten nicht wachstumshemmend
(Hemmzone: <=7 mm); keine weiteren Angaben
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

(14)

Type: aquatic
Species: Staphylococcus aureus (Bacteria)
Exposure period:
Unit: **Analytical monitoring:** no data
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: Antimikrobielle Wirkung:
8 ul Isobornylacetat/Platte wirkten wachstumshemmend
(Hemmzone: >=16 mm); keine weiteren Angaben
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

(14)

Type: aquatic
Species: anaerobic bact. from a domestic water treatment plant
Exposure period: 24 hour(s)
Unit: mg/l **Analytical monitoring:** no
SG : ca. 80
Method: ETAD Fermentation tube method "Determination of damage to
effluent bacteria by the Fermentation Tube Method"
Year: 1979 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: SG = Schaedlichkeitsgrenze
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Test substance: Isobornylacetat extra

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4.5 Chronic Toxicity to Aquatic Organisms

4.5.1 Chronic Toxicity to Fish

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4.5.2 Chronic Toxicity to Aquatic Invertebrates

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TERRESTRIAL ORGANISMS

4.6.1 Toxicity to Soil Dwelling Organisms

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4.6.2 Toxicity to Terrestrial Plants

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4.6.3 Toxicity to other Non-Mamm. Terrestrial Species

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4.7 Biological Effects Monitoring

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4.8 Biotransformation and Kinetics

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4.9 Additional Remarks

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5.1 Acute Toxicity

5.1.1 Acute Oral Toxicity

Type: LD50
Species: rat
Sex:
Number of Animals:
Vehicle:
Value: > 10000 mg/kg bw
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

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Type: LD50
Species: rat
Sex:
Number of Animals:
Vehicle:
Value: = 10000 mg/kg bw
Method: other
Year: **GLP:** no data
Test substance: no data
Source: WEISSMEER BALTISCHE, Import-Export GmbH Hamburg

Type: LD50
Species: mouse
Sex:
Number of Animals:
Vehicle:
Value: = 9000 mg/kg bw
Method: other: keine Angaben
Year: **GLP:** no data
Test substance: no data
Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

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5.1.2 Acute Inhalation Toxicity

-

5.1.3 Acute Dermal Toxicity

Type: LD50
Species: rabbit
Sex:
Number of Animals:
Vehicle:
Value: > 20000 mg/kg bw
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

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5.1.4 Acute Toxicity, other Routes

-

5.2 Corrosiveness and Irritation

5.2.1 Skin Irritation

Species: rabbit
Concentration:
Exposure:
Exposure Time:
Number of Animals:
PDII:
Result: irritating
EC classificat.: irritating
Method: OECD Guide-line 404 "Acute Dermal Irritation/Corrosion"
Year: 1988 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: Einwirkzeit: 4 h; R 38 - reizt die Haut
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

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Species: rabbit
Concentration:
Exposure:
Exposure Time:
Number of Animals:
PDII:
Result: slightly irritating
EC classificat.:
Method: other: okklusiv
Year: **GLP:** no data
Test substance: no data
Remark: Einwirkzeit: 24 h
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

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5.2.2 Eye Irritation

Species: rabbit
Concentration:
Dose:
Exposure Time:
Comment:
Number of Animals:
Result: slightly irritating
EC classificat.: not irritating
Method: OECD Guide-line 405 "Acute Eye Irritation/Corrosion"
Year: 1988 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: Einwirkzeit: 24 h; nicht kennzeichnungspflichtig
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

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5.3 Sensitization

Type: Guinea pig maximization test
Species: human
Number of Animals:
Vehicle:
Result: not sensitizing
Classification:
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: Versuchsdurchfuehrung nach Kligman (1966); 25 Probanden wurde Isobornylacetat in einer Konzentration von 10 % in Vaseline appliziert.
Source: Hoechst AG Frankfurt/Main

Test substance: Isobornylacetat

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5.4 Repeated Dose Toxicity

Species: rat **Sex:** male/female

Strain: other: CFE

Route of admin.: oral unspecified

Exposure period: 13 Wochen

Frequency of treatment: taeglich

Post. obs. period:

Doses: 0, 15, 90, 270 mg/kg Kgw./Tag

Control Group: yes

NOAEL: = 15 mg/kg bw

Method: other: keine Daten

Year:

GLP: no data

Test substance: other TS

Remark: 15 Tiere/Geschlecht/Dosis- und Kontrollgruppe; Kontrolle: Maisoel

Result: Kein Einfluss auf Koerpergewichtsentwicklung, Futterverbrauch und haematologische Parameter, in der hoechsten Dosisgruppe bei den m Nierenfunktionsstoerungen (Abnahme der Faehigkeit zur Urinkonzentration), erhoehter Wasserverbrauch, erhoehtete relative Nierengewichte sowie Vakuolisierung des Nierentubulusepithels, bei den 2 bei Versuchsende erhoehte absolute und relative Nierengewichte sowie Degeneration und Atrophie der Nierentubuli, bei beiden Geschlechtern erhoehtes relatives Lebergewicht und erhoehtes relatives und absolutes Blinddarmgewicht, bei den m zusaetzlich Vakuolisierung des Epithels des intrahepatischen Gallengangs, Zeichen von Nephrotoxizitaet wurden auch bei taeglichen Dosen von 90 mg/kg Kgw. gefunden.

Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

Test substance: Reinheitsgrad: >97 %

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5.5 Genetic Toxicity 'in Vitro'

Type: Ames test

System of testing: Salmonella typhimurium TA 98, TA 100, TA 1535, TA 1537, TA 1538

Concentration:

Metabolic activation: with and without

Result: negative

Method: OECD Guide-line 471 "Genetic Toxicology: Salmonella typhimurium Reverse Mutation Assay"

Year:

1988 **GLP:** yes

Test substance: as prescribed by 1.1 - 1.4

Source: Hoechst AG Frankfurt/Main

Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

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5.6 Genetic Toxicity 'in Vivo'

Type: Micronucleus assay
Species: mouse **Sex:** male/female
Strain: NMRI
Route of admin.: oral unspecified
Exposure period: keine Daten
Doses: 2000 mg/kg Kgw.
Result:
Method: OECD Guide-line 474 "Genetic Toxicology: Micronucleus Test"
Year: 1991 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Result: Negativ
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

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5.7 Carcinogenicity

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5.8 Toxicity to Reproduction

-

5.9 Developmental Toxicity/Teratogenicity

Species: rat **Sex:** female
Strain: Wistar
Route of admin.: gavage
Exposure period: 7. - 16. Gestationstag
Frequency of treatment: taeglich
Duration of test:
Doses: 0, 1000 mg/kg Kgw./Tag
Control Group: yes
NOAEL Maternalt.: = 1000 mg/kg bw
Method: OECD Guide-line 414 "Teratogenicity"
Year: **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: 20 Tiere/Gruppe; Limit-Test; Kontrolle: Sesamoel
Result: Keine maternale und embryonale/fetale Toxizitaet sowie keine Teratogenitaet.
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

(23)

5.10 Other Relevant Information

Type: Cytotoxicity
Remark: Ratte (Wistar, 2 Wochen alt, 3 Tiere/Gruppe), 0 oder 7.9 x 10E-9 M (1.551 mg/m³), inhal., 4 bzw. 8 Wochen (keine Angaben ueber Expositionszeit/Tag)
Wirkung:
Im Vergleich zu den Kontrolltieren deutliche Veraenderungen der granulierten Zellen im zentralen Bereich des Riechkolbens.
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (24)

Type: Excretion
Remark: Isobornylacetat wurde beim Kaninchen zu 80 bis 95 % als Bornylglukuronid ausgeschieden, beim Hund waren es 52 % und beim Menschen 80 % (keine weiteren Angaben).
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Test substance: Isobornylacetat (25)

Type: Metabolism
Remark: Markiertes Isobornylacetat wurde einer Schaumbadefluessigkeit zugesetzt (3.18 ug/ml Badewasser), die ausserdem Campher, Menthol, alpha-Pinen und Limonen enthielt. 3 m dd-Maeuse bekamen die Badefluessigkeit dermal (Ruecken) appliziert. Nach 10 min wurden ca. 60 ng Isobornylacetat/ml Blut gemessen (Maximalwert, 3 cm² Hautflaeche), nach 40 min waren es 15 ng/ml; ausserdem nahm die Blutkonzentration linear mit der Resorptionsflaeche.
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main
Test substance: Markiertes Isobornylacetat (26)

Type: other: Enzyminduktion
Remark: Ratte (Sprague-Dawley), maennlich (4 Tiere), 500 oder 1000 mg/kg Kgw./Tag, i.p., 3 Tage
Wirkung:
Dosisabhaengige Induktion von mikrosomalen Enzymen in der Leber (Cytochrom P-450, Cytochrom b5, Aminopyrin-N-Demethylase, Ethylmorphin-N-Demethylase, NADP-Cytochrom C-Reduktase).
Source: Hoechst AG Frankfurt/Main
Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main (27)

5.11 Experience with Human Exposure

Memo: Maximierungstest

Result: In einem Maximierungstest wurde Isobornylacetat 25 Probanden in einer Konzentration von 10 % in Vaseline appliziert. Es bewirkte keine Sensibilisierungsreaktion.

Source: Hoechst AG Frankfurt/Main
Clariant GmbH Frankfurt am Main

(28)

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7.1 Risk Assessment

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