

I U C L I D

D a t a s e t

Existing Chemical Substance ID: 5329-14-6
CAS No. 5329-14-6
EINECS Name sulphamidic acid
EINECS No. 226-218-8
Molecular Formula H3NO3S

Dataset created by: EUROPEAN COMMISSION - European Chemicals Bureau

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European Chemicals Bureau

1.0.1 OECD and Company Information

Name: ACNA C.O.
Town: 17010 Cengio (SV)
Country: Italy

Name: ALBRIGHT & WILSON A/S
Street: SIESTAVEJ 7
Town: 2600 GLOSTRUP
Country: Denmark
Phone: 4543440100
Telefax: 4543440333

Name: ALBRIGHT & WILSON A/S
Street: TRONDHEIMSVEIEN 65
Town: 2040 KLØFTA
Country: Norway
Phone: 47 63 98 14 10
Telefax: 47 63 98 18 09

Name: ALBRIGHT & WILSON AB
Street: HÄLLEFLUNDREGATAN 12
Town: 426 58 VÄSTRA FRÖLUNDA
Country: Sweden
Phone: +46 31698060
Telefax: +46 31698222

Name: Albright & Wilson Ltd.
Street: PO Box 3, Oldbury
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Country: United Kingdom
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Telefax: (+44)21 4205151
Telex: 336291 ALBRI G

Name: Algol Oy
Street: Karapellontie 6
Town: 02610 Espoo
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Phone: +358-9-50991
Telefax: +358-9-5099254

Name: Bang & Bonsomer Oy
Street: Itälahdenkatu 18 A
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Telefax: +358-0-6924174
Telex: 121439 BABO FI

Name: BASF AG
Street: Karl-Bosch-Str
Town: 67056 Ludwigshafen
Country: Germany

Name: Brenntag AG
Street: Humboldttring 15
Town: 45472 Muehlheim a. d. Ruhr
Country: Germany

Name: BRENNTAG Chemiepartner GmbH
Street: Humboldttring 15
Town: 45472 Mülheim
Country: Germany
Phone: 0208/494-0

Name: BRENNTAG International Chemicals GmbH
Street: Humboldttring 15
Town: 45472 Mülheim
Country: Germany
Phone: 0208/494431
Telefax: 0208/494407

Name: Chematex AB
Street: Koksgatan 18, PO Box 50121
Town: 20211 Malmö
Country: Sweden
Phone: +46-40-287300
Telefax: +46-40-932874

Name: Ciba Specialites Chimiques SA
Street: BP 47
Town: 69191 SAINT-FONS
Country: France
Phone: 04.72.21.26.26
Telefax: 04.72.21.26.27

Name: Ciba Spezialitaetenchemie Lampertheim GmbH formerly CIBA Additive GmbH
Street: Chemiestrasse
Town: D-68623 Lampertheim
Country: Germany
Phone: +49(6206)15-0
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Name: DiverseyLever
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Town: 20100 Turku
Country: Finland
Phone: +358-2-2697111

Telefax: 2-2302048

Name: Donauchem
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Town: 1030 Wien
Country: Austria
Phone: 43-1-71148

Name: DyStar
Town: 51304 Leverkusen
Country: Germany

Name: EIGENMANN & VERONELLI S.P.A.
Street: DELLA MOSA 6
Town: 20017 RHO (MI)
Country: Italy
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Name: Helm AG
Street: Nordkanalstrasse 28
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Phone: +49402375-0
Telefax: +49402375-90
Telex: 2170150

Name: Henkel KGaA
Street: Henkelstr. 67
Town: 40589 Duesseldorf
Country: Germany

Name: Hydro Chemicals Norge
Street: Fyrstikkalleen 3B, P.O. Box 23 Haugenstua
Town: N-0604 OSLO
Country: Norway
Phone: 47 2243 2400
Telefax: 47 2243 2402
Telex: 71771 nchem n

Name: INTERORGANA Chemiehandel GmbH
Street: Wörthstr. 34
Town: 50668 Köln
Country: Germany
Phone: 0221/7765-0
Telefax: 0221/7765-200
Telex: 8 884 890

Name: MB SVEDA AB
Street: Box 4072
Town: 203 11 Malmö
Country: Sweden
Phone: 0094640352800
Telefax: 0094640125172
Telex: 33188

Name: Norkem B.V.
Street: Davidstraat 5
Town: 1601 AT Enkhuizen
Country: Netherlands
Phone: 0228-316688
Telefax: 0228-313604

Name: NORKEM LIMITED
Street: NORKEM HOUSE, BEXTON LANE
Town: WA16666 9FB KNUTSFORD
Country: United Kingdom
Phone: 01565 755550
Telefax: 01565 755496

Name: Omya Peralta GmbH
Street: Wandsbeker Zollstr. 13
Town: 22041 Hamburg
Country: Germany
Phone: +49-40-65872-0
Telefax: +49-40-65872-200

Name: Petrasol B.V.
Street: P.O.Box 222
Town: 4200 AE Gorinchem
Country: Netherlands
Phone: +31 183 630555
Telefax: +31 183 632272
Telex: 23602 petr nl

Name: PRODECHIM
Street: 191 C AVENUE ST EXUPERY
Town: 69500 BRON
Country: France

Name: SunChemical
Street: Gl. Lyngvej 2
Town: 4600 Køge
Country: Denmark
Phone: +45 53657585
Telefax: +45 53663019
Telex: 43589 KVK DK
Cedex: 2142007

Name: Telko Oy
Street: Hitsaajankatu 9 A
Town: 00810 Helsinki
Country: Finland
Phone: +358-9-615500
Telefax: +358-9-780064

Name: TRANSOL CHEMICALS BV
Street: POSTBUS 1030
Town: 2980BA RIDDERKERK
Country: Netherlands
Phone: 0180-460300
Telefax: 0180-417310

Name: TRANSOL Chemiehandel GmbH
Street: Ruhrallee 201
Town: 45136 Essen
Country: Germany
Phone: 0201/8959-0
Telefax: 0201/8959-100
Telex: 8 579 tra d
Cedex: -/-

Name: TRANSOL CHIMICA ITALIA S.R.L.
Street: VIA ROMA ,108
Town: 20060 CASSINA DE PECCHI
Country: Italy
Phone: 0049295300523
Telefax: 004929514444

Name: VOS B.V.
Street: Ondernemingsweg 1A
Town: 2404 HM Alphen aan den Rijn
Country: Netherlands
Phone: 31-172-431601
Telefax: 31-172-432494

Name: YORKSHIRE CHEMICALS plc
Street: 27 KIRKSTALL ROAD
Town: LS31LL LEEDS
Country: United Kingdom
Phone: 0113 244 3111
Telefax: 0113 242 1670
Telex: 55366

1.0.2 Location of Production Site

-

1.0.3 Identity of Recipients

-

1.1 General Substance Information

Substance type: inorganic
Physical status: solid

Substance type: organic
Physical status: solid

1.1.1 Spectra

-

1.2 Synonyms

ACIDE AMIDOSULFURIQUE

Source: PRODECHIM BRON

amido sulfonic acid

Source: ISIS/RISKLINE, release VI, 1997, Haskoning
Petrasol B.V. Gorinchem

Amidoschwefelsaeure

Source: Henkel KGaA Duesseldorf

Amidoschwefelsäure

Source: Henkel KGaA Duesseldorf
Omya Peralta GmbH Hamburg

AMIDOSULFONIC ACID

Source: ACNA C.O. Cengio (SV)

Amidosulfonic Acid

Source: TRANSOL CHIMICA ITALIA S.R.L. CASSINA DE PECCHI

Amidosulfonic acid

Source: Albright & Wilson Ltd. Warley
MB SVEDA AB Malmö
BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

Amidosulfonic acid, amidosulfuric acid,

Source: Telko Oy Helsinki

Amidosulfons ure

Source: INTERORGANA Chemiehandel GmbH Köln

Amidosulfonsaeure

Source: Albright & Wilson Ltd. Warley
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr
Ciba Spezialitaetenchemie Lampertheim GmbH formerly CIBA
Additive GmbH Lampertheim

Amidosulfonsäure

Source: Henkel KGaA Duesseldorf
TRANSOL Chemiehandel GmbH Essen
BRENNTAG International Chemicals GmbH Mülheim

AMIDOSULFURIC ACID

Source: ACNA C.O. Cengio (SV)

Amidosulfuric acid

Source: Albright & Wilson Ltd. Warley
BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

Amidosulphonic acid

Source: Albright & Wilson Ltd. Warley

AMIDOSULPHONIC ACID

Source: YORKSHIRE CHEMICALS plc LEEDS

Amidosulphuric acid

Source: Albright & Wilson Ltd. Warley
Hydro Chemicals Norge OSLO
DiverseyLever Turku

AMIDOSULPHURIC ACID

Source: YORKSHIRE CHEMICALS plc LEEDS
ALBRIGHT & WILSON AB VÄSTRA FRÖLUNDA
ALBRIGHT & WILSON A/S KLØFTA

Aminesulfonic acid

Source: Albright & Wilson Ltd. Warley
BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

AMINOSULFONIC ACID

Source: ACNA C.O. Cengio (SV)

Aminosulfonic acid

Source: Albright & Wilson Ltd. Warley
BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

aminosulfonic acid; amidosulfonic acid; amido sulphur acid; sulfamidic acid

Source: Algol Oy Espoo

Aminosulfonzuur

Source: VOS B.V. Alphen aan den Rijn

Aminosulfuric acid

Source: BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

Aminosulphonic acid

Source: Albright & Wilson Ltd. Warley

AMINOSULPHONIC ACID

Source: YORKSHIRE CHEMICALS plc LEEDS

Brindamid

Source: Henkel KGaA DuesseldorfH₂NSO₃H**Source:** Henkel KGaA Duesseldorf

Jumbo

Source: BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

P-aminobenzeensulfonzuur

Source: Norkem B.V. Enkhuizen

Scale Cleen

Source: BASF AG Ludwigshafen
Henkel KGaA Duesseldorf

Sulfamic acid

Source: Albright & Wilson Ltd. Warley
Henkel KGaA Duesseldorf

Sulfamic acid (8CI, 9CI)

Source: BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

Sulfamidezuur

Source: VOS B.V. Alphen aan den Rijn

SULFAMIDIC ACID

Source: ACNA C.O. Cengio (SV)

Sulfamidic acid

Source: Albright & Wilson Ltd. Warley
BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

Sulfamidsaeure

Source: Albright & Wilson Ltd. WarleySulfamidsaeure (H₂NSO₃H)**Source:** Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

Sulfamidsäure

Source: Henkel KGaA Duesseldorf
TRANSOL Chemiehandel GmbH Essen

Sulfamidsäure (H₂NSO₃H)**Source:** Henkel KGaA Duesseldorf

Sulfaminic acid

Source: Albright & Wilson Ltd. Warley
BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

Sulfaminsäure

Source: Henkel KGaA Duesseldorf
Omya Peralta GmbH Hamburg

Sulfamsäure

Source: TRANSOL Chemiehandel GmbH Essen

Sulphamic acid

Source: Albright & Wilson Ltd. Warley
BASF AG Ludwigshafen
Henkel KGaA Duesseldorf
Brenntag AG Muehlheim a. d. Ruhr

SULPHAMIC ACID

Source: YORKSHIRE CHEMICALS plc LEEDS

1.3 Impurities

-

1.4 Additives

-

1.5 Quantity

Quantity 500 000 - 1 000 000 tonnes

1.6.1 Labelling

Labelling: as in Directive 67/548/EEC**Symbols:** Xi
E**Specific limits:** no data**R-Phrases:** (36/38) Irritating to eyes and skin
(52/53) Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment**S-Phrases:** (2) Keep out of reach of children
(26) In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
(28) After contact with skin, wash immediately with plenty of ...
(61) Avoid release to the environment. Refer to special instructions/Safety data sets

1.6.2 Classification

Classification: as in Directive 67/548/EEC
Class of danger: irritating
R-Phrases: (36/38) Irritating to eyes and skin

Classification: as in Directive 67/548/EEC
Class of danger:
R-Phrases: (52) Harmful to aquatic organisms
(53) May cause long-term adverse effects in the aquatic environment

1.7 Use Pattern

Type: type
Category: Non dispersive use

Type: type
Category: Use in closed system

Type: type
Category: Wide dispersive use

Type: industrial
Category: Basic industry: basic chemicals

Type: industrial
Category: Chemical industry: used in synthesis

Type: industrial
Category: Metal extraction, refining and processing of metals

Type: industrial
Category: Paper, pulp and board industry

Type: industrial
Category: Textile processing industry

Type: industrial
Category: other: Chemical industry and polymers

Type: industrial
Category: other: Industrial

Type: industrial
Category: other: Nuclear industry

Type: industrial
Category: other: Personal and domestic

Type: industrial
Category: other: Public domain

Type: industrial
Category: other: Reinigungsmittelindustrie

Type: industrial
Category:

Type: industrial
Category: other

Type: use
Category: Cleaning/washing agents and disinfectants

Type: use
Category: Intermediates

Type: use
Category: pH-regulating agents

Type: use
Category: Stabilizers

Type: use
Category: other: Product in many use applications

Type: use
Category: other: decalcification

Type: use
Category: other: vedi "Osservazioni"

Type: use
Category: other: zum Entfernen von Ablagerungen

Type: use
Category:

1.7.1 Technology Production/Use

-

1.8 Occupational Exposure Limit Values

Type of limit: MAK (DE)
Limit value: 6 mg/m³
Source: TRANSOL CHIMICA ITALIA S.R.L. CASSINA DE PECCHI

Type of limit: MAK (DE)
Limit value: 6 mg/m³
Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.
Result: MAK-Wert entspricht dem allgemeinen Staubgrenzwert.
Source: TRANSOL Chemiehandel GmbH Essen

Type of limit: other
Limit value: 1 mg/m³
Schedule: 8 hour(s)
Source: DiverseyLever Turku

Type of limit:
Limit value:
Remark: There are no occupational exposure limits for sulphamic acid but in-house industrial experience indicates the following to be an acceptable limit:

Time Weighted Average (8 hr) = 1 mg/m³.
Source: Albright & Wilson Ltd. Warley

1.9 Source of Exposure

Remark: No manufacturing sources/sites currently within the EC.
Source: Albright & Wilson Ltd. Warley

1.10.1 Recommendations/Precautionary Measures

-

1.10.2 Emergency Measures

-

1.11 Packaging

-

1.12 Possib. of Rendering Subst. Harmless

-

1.13 Statements Concerning Waste

-

1.14.1 Water Pollution

Classified by:
Labelled by:
Class of danger: 1 (weakly water polluting)
Source: DyStar Leverkusen

1.14.2 Major Accident Hazards

-

1.14.3 Air Pollution

-

1.15 Additional Remarks

Source: PRODECHIM BRON

Remark:

1. Albright & Wilson are the sole EC importers/
distributors of sulphamic acid and ammonium
sulphamate manufactured by Nissan Chemical
Industries Ltd., Tokyo, Japan.
2. Albright & Wilson in preparing this dossier are
also acting on behalf of Hoechst AG, Germany
see Section 1.03

Source: Albright & Wilson Ltd. Warley

1.16 Last Literature Search

-

1.17 Reviews

-

1.18 Listings e.g. Chemical Inventories

-

2.1 Melting Point

Value: ca. 190 degree C
Source: Brenntag AG Muehlheim a. d. Ruhr (1) (2)

Value: ca. 190 degree C
Decomposition: yes
Sublimation: no
Method: other
GLP: no data
Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.
Result: Gefährliche Zersetzungsprodukte bei Temperaturen >190°C: N2; SO2; SO3
Source: TRANSOL Chemiehandel GmbH Essen

Value: = 205 degree C
Source: NORKEM LIMITED KNUTSFORD

Value: ca. 205 degree C
Decomposition: yes
Sublimation: no
Source: Chematex AB Malmö

Value: = 205 degree C
Decomposition: yes
Remark: Schmilzt unter Zersetzung
Source: Brenntag AG Muehlheim a. d. Ruhr (2)

Value: ca. 205 degree C
Decomposition: yes
Sublimation: no
Method: other
GLP: no data
Source: INTERORGANA Chemiehandel GmbH Köln

Value: ca. 206 degree C
Decomposition: yes
Sublimation: no
Source: Telko Oy Helsinki

Value: 205 degree C
Decomposition: yes
Sublimation: no
GLP: no data
Remark: Value: 205 degree C with decomposition.
Source: Albright & Wilson Ltd. Warley (3)

2.2 Boiling Point

Value: ca. 260 degree C
Source: Chematex AB Malmö

Value:
Remark: Not relevant.
Source: Albright & Wilson Ltd. Warley

2.3 Density

Type:
Value: ca. 1.25 at 20 degree C
Source: Telko Oy Helsinki

Type: relative density
Value: = 2 g/cm³ at 20 degree C
Source: Chematex AB Malmö

Type: density
Value: = 2.1 g/cm³ at 20 degree C
Source: Brenntag AG Muehlheim a. d. Ruhr

(1) (2)

Type: density
Value: ca. 2.126 g/cm³ at 25 degree C
Method: other
Source: INTERORGANA Chemiehandel GmbH Köln

Type: relative density
Value: = 2.126 g/cm³ at 25 degree C
Method: other
GLP: no data
Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.
Source: TRANSOL Chemiehandel GmbH Essen

Type: density
Value: 2.13 g/cm³ at 25 degree C
Source: Albright & Wilson Ltd. Warley

Type: relative density
Value: = 1.25 g/cm³
Source: NORKEM LIMITED KNUTSFORD

Type: density
Value: = 2.15 g/cm³
Source: Brenntag AG Muehlheim a. d. Ruhr

(2)

Type: bulk density
Value: ca. 600 kg/m³
Method: other
Source: INTERORGANA Chemiehandel GmbH Köln

Type: bulk density
Value: 1000 - 1300 kg/m³
Source: Albright & Wilson Ltd. Warley

Type: bulk density
Value: 1000 - 1300 kg/m³
Source: Brenntag AG Muehlheim a. d. Ruhr

(1) (2)

2.3.1 Granulometry

-

2.4 Vapour Pressure

Value: .0078 hPa at 20 degree C
GLP: no data
Source: Albright & Wilson Ltd. Warley

Value: .025 hPa at 100 degree C
Source: Albright & Wilson Ltd. Warley

(4)

2.5 Partition Coefficient

log Pow:
Method:
Year:
Remark: Calculation not possible.
Source: Albright & Wilson Ltd. Warley

log Pow:
Method:
Year:
Remark: Berechnung nicht moeglich
Source: Brenntag AG Muehlheim a. d. Ruhr

2.6.1 Water Solubility

Value: ca. 17.5 vol% at 20 degree C
Source: INTERORGANA Chemiehandel GmbH Köln

Value: ca. 175 g/l at 20 degree C
pH: ca. 1.2
Source: Telko Oy Helsinki

Value: = 213 g/l at 20 degree C
pH: ca. 1.2 at 10 g/l and 20 degree C
Source: Brenntag AG Muehlheim a. d. Ruhr

(1) (2)

Value: = 213 g/l at 20 degree C
Method: other
GLP: no data
Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.
Source: TRANSOL Chemiehandel GmbH Essen

Value: = 250 g/l at 20 degree C
pH: = 1.6 at 25 vol% and 20 degree C
Source: Chematex AB Malmö

Value: 213 g/l at 20 degree C
Qualitative: of high solubility
pKa: .1 at 25 degree C
pH: 1.2 at 10 g/l and 20 degree C
Source: Albright & Wilson Ltd. Warley

Value: = 470 g/l at 80 degree C
Source: Brenntag AG Muehlheim a. d. Ruhr

(1) (2)

Value: = 470 g/l at 80 degree C
Method: other
GLP: no data
Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.
Source: TRANSOL Chemiehandel GmbH Essen

Value: 470 g/l at 80 degree C
Qualitative: of high solubility
Source: Albright & Wilson Ltd. Warley

2.6.2 Surface Tension

-

2.7 Flash Point

Value:
Type:
Method:
Year:
Remark: Not relevant.
Source: Albright & Wilson Ltd. Warley

2.8 Auto Flammability

Value:
Remark: Not relevant.
Source: Albright & Wilson Ltd. Warley

2.9 Flammability

Result: non flammable
Source: Chematex AB Malmö

Result: non flammable
Method: other
GLP: no data
Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.
Source: TRANSOL Chemiehandel GmbH Essen

Result:
Remark: Does not burn or help other materials to burn.
Source: Albright & Wilson Ltd. Warley

(5)

2.10 Explosive Properties

Result: no data
Source: Chematex AB Malmö

Result:
Remark: Not explosive.
Source: Albright & Wilson Ltd. Warley

(6)

2.11 Oxidizing Properties

Result: no oxidizing properties
Source: Chematex AB Malmö

Result:
Remark: No oxidising properties.
Source: Albright & Wilson Ltd. Warley

2.12 Additional Remarks

Remark: Thermal Decomposition:
Decomposes above melting point (205C) producing nitrogen and corrosive fumes and gases (sulphur dioxide, ammonia).

Hazardous Reactions:

- (1) Reacts with alkalis to generate heat, avoid contact with strong oxidising agents.
- (2) Corrosive characterisation exhibited upon contact with moisture/water.
- (3) Strongly acidic concentrated solutions should not be heated in closed or poorly vented vessels as exothermic hydrolysis could generate sufficient steam to cause container rupture. There is no danger of runaway hydrolysis at temperatures obtainable at atmospheric pressure.
- (4) Reacts rapidly with nitrites liberating nitrogen and forming sulphuric acid.

Incompatible Substances:

Alkalis, metals and nitrites.

Source: Albright & Wilson Ltd. Warley (7)

Remark: Gefaehrliche Zersetzungsprodukte: Schwefeldioxid, Ammoniak;
Gefaehrlich Reaktionen: Reagiert mit Nitriten unter
Stickstoff-Entwicklung; Entwickelt in waessriger Loesung mit
Metallen H2;

Source: Unvertraegliche Substanz: Laugen, Nitrite, Metalle
Brenntag AG Muehlheim a. d. Ruhr (1) (2)

3.1.1 Photodegradation

Type: air

INDIRECT PHOTOLYSIS

Sensitizer: OH

Method:

Year:

GLP:

Test substance:

Remark: Decomposition in the atmosphere caused by OH radicals is not known.

Source: Calculation is not possible due to lack of increments.
Albright & Wilson Ltd. Warley

(8)

Type: air

INDIRECT PHOTOLYSIS

Sensitizer: OH

Method:

Year:

GLP:

Test substance:

Remark: Abbau in der Atmosphaere durch OH-Radikale nicht bekannt;
Berechnung wegen fehlender Inkremente nicht moeglich

Source: Brenntag AG Muehlheim a. d. Ruhr

(9)

3.1.2 Stability in Water

Type: abiotic

Method:

Year:

GLP:

Test substance:

Remark:

1. Hydrolysis is fast in acidic environments, very slow to negligible at pH >3.
2. A N solution (97 g/litre) was not hydrolysed when stored at room temp. for 8 months.
3. Slowly hydrolyses to ammonium hydrogen sulphate.
4. Tested in accordance with Directive 84/449/EEC, C10 abiotic (hydrolysis). The results for the Preliminary Test indicate that at pH 4, 7 and 9 less than 10% of the test substance had hydrolysed in 120 hours at 50C, which according to the Directive equates to a half-life greater than 12 months at 25C.

Test substance: as prescribed by 1.1 - 1.4.
Source: Albright & Wilson Ltd. Warley

(10)

Type: abiotic
Method:
Year: GLP:
Test substance:
Remark: Hydrolyse im sauren Milieu schnell, bei pH-Werte > ca. 3
sehr langsam bis vernachlaessigbar
Source: Brenntag AG Muehlheim a. d. Ruhr (11)

Type: abiotic
Method:
Year: GLP:
Test substance:
Remark: Hydrolysiert langsam zu Ammoniumsulfat
Source: Brenntag AG Muehlheim a. d. Ruhr (2)

Type:
Method:
Year: GLP:
Test substance:
Remark: Bildet auch bei Verd nnung noch tzende Gemische
Source: INTERORGANA Chemiehandel GmbH Köln (12) (13)

3.1.3 Stability in Soil

Type: Radiolabel:
Concentration:
Cation exch.
capac.
Microbial
biomass:
Method:
Year: GLP:
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

3.2 Monitoring Data (Environment)

Type of
measurement:
Medium:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

3.3.1 Transport between Environmental Compartments

Type:
Media:
Method:
Year:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

3.3.2 Distribution

Media:
Method:
Year:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

3.4 Mode of Degradation in Actual Use

Remark: No data.
Source: Albright & Wilson Ltd. Warley

Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.
Result: Abbau durch Neutralisation unter Salzbildung.
Source: TRANSOL Chemiehandel GmbH Essen

3.5 Biodegradation

-

3.6 BOD5, COD or BOD5/COD Ratio

-

3.7 Bioaccumulation

Species:
Exposure period:
Concentration:
BCF:
Elimination:
Method:
Year: GLP:
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

3.8 Additional Remarks

Remark: None.
Source: Albright & Wilson Ltd. Warley

Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.

Result: Wassergefährdungsklasse 1

Source: TRANSOL Chemiehandel GmbH Essen

Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.

Result: Abfallschlüssel-Nr. DE: 594 04 (Sulfonsäuren)

Source: TRANSOL Chemiehandel GmbH Essen

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

Type: static
Species: Pimephales promelas (Fish, fresh water)
Exposure period: 96 hour(s)
Unit: mg/l **Analytical monitoring:** no data
LC50: = 70.3
Method: other: Statischer Test, vergleichbar mit OECD-Guideline 203 (04.04.1984)
Year: **GLP:** no data
Test substance: no data
Source: Brenntag AG Muehlheim a. d. Ruhr (14)

Type: static
Species: Pimephales promelas (Fish, fresh water)
Exposure period: 96 hour(s)
Unit: mg/l **Analytical monitoring:** no data
LC0: = 14.2
Method: other: Statischer Test, vergleichbar mit OECD-Guideline 203 (04.04.1984)
Year: **GLP:** no data
Test substance: no data
Source: Brenntag AG Muehlheim a. d. Ruhr (15)

Type: static
Species: Poecilia reticulata (Fish, fresh water)
Exposure period: 24 hour(s)
Unit: mg/l **Analytical monitoring:** no data
SG : > 2000
Method: other: DIN 38412 Teil 15
Year: 1971 **GLP:** no
Test substance: other TS
Remark: SG = Schaedlichkeitsgrenze (berechnet auf Testsubstanz)
Source: Brenntag AG Muehlheim a. d. Ruhr
Test condition: Mit Calciumcarbonat und Natriumhydroxyd neutralisierte Loesung; pH-Wert: 6.5
Test substance: Untersucht wurde Amidosulfonsaeure als gemischtes Na-Ca-Salz in 11,7 %iger Loesung (16)

Type: static
Species: other: Pimephales Promelas (Fish, fresh water)
Exposure period: 96 hour(s)
Unit: mg/l **Analytical monitoring:** no data
LC50: = 70.3
Method: other: Static Test, Comparable with OECD Guideline 203 (4/4/1984)
Year: 1981 **GLP:** no data
Test substance: no data
Source: Albright & Wilson Ltd. Warley (17)

Type: static
Species: other: Pimephales promelas (fish, fresh water)
Exposure period: 96 hour(s)
Unit: mg/l **Analytical monitoring:** no data
LC0: = 14.2
Method: other: Static Test, Comparable with OECD Guideline 203 (4/4/84)
Year: 1981 **GLP:** no data
Test substance: no data
Source: Albright & Wilson Ltd. Warley

(18)

Type: static
Species: other: Poecilia reticulata (fish, fresh water)
Exposure period: 24 hour(s)
Unit: mg/l **Analytical monitoring:** no data
Method: other: DIN 38412 Teil 15.
Year: 1971 **GLP:** no
Test substance: other TS
Remark: Test Result: Schaedlich Keitsgrenze (berechnet auf Testsubstanz): >2000 mg/l.
 Exposure Period: 24 hours.

Test Condition: neutralised solution containing calcium carbonate and sodium hydroxide; pH value 6.5.

Test Substance: Amidosulphonic acid tested as mixed NaCa salt in 11.7 percent solution.

Source: Albright & Wilson Ltd. Warley

(19)

Type:
Species:
Exposure period:
Unit: **Analytical monitoring:**
Method:
Year: **GLP:**
Test substance:
Remark: Gegen Fische ergeben sich nach Neutralisation die geringen Schadwirkungen der Salze von Amidosulfons ure. Wird nicht neutralisiert, so ist der pH-Wert zu beachten. Die toxische Wirkung beginnt f r Fische unter pH 6,0 (steigend mit kleinerem pH-Wert).
Source: INTERORGANA Chemiehandel GmbH Köln

(12) (13)

4.2 Acute Toxicity to Aquatic Invertebrates

Species:
Exposure period:
Unit: **Analytical monitoring:**
Method:
Year: **GLP:**
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

4.3 Toxicity to Aquatic Plants e.g. Algae

Species:
Endpoint:
Exposure period:
Unit: **Analytical monitoring:**
Method:
Year: **GLP:**
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

4.4 Toxicity to Microorganisms e.g. Bacteria

Type: aquatic
Species: Pseudomonas putida (Bacteria)
Exposure period: 16 hour(s)
Unit: mg/l **Analytical monitoring:** no
EC10: >= 1000
Method: other: DIN 38412 Teil 8
Year: 1988 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Source: Brenntag AG Muehlheim a. d. Ruhr
Test condition: Der pH-Wert wurde auf 7.1 eingestellt

(20)

Type: aquatic
Species: other bacteria: Pseudomonas putida. (Bacteria)
Exposure period: 16 hour(s)
Unit: mg/l **Analytical monitoring:** no
EC10: >= 1000
Method: other: DIN 38412 Teil 8
Year: 1988 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: Test condition: pH value adjusted to 7.1.
Source: Albright & Wilson Ltd. Warley

(21)

Type: aquatic
Species: anaerobic bact. from a domestic water treatment plant
Exposure period: 24 hour(s)
Unit: mg/l **Analytical monitoring:** no
Method: ETAD Fermentation tube method "Determination of damage to effluent bacteria by the Fermentation Tube Method"
Year: 1971 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: ETAD Fermentation tube method -
 "Determination of damage to effluent bacteria by the Fermentation Tube Method".

Test condition: Neutralised 11.7 per cent solution containing CaCO₃ and NaOH; pH value 6.5.

Test result: Schaedlichkeitsgrenze (Gerechnet auf Testsubstanz): >10000 mg/l.

Exposure period: 24 hours.

Source: Albright & Wilson Ltd. Warley

(22)

Type: aquatic
Species: anaerobic bact. from a domestic water treatment plant
Exposure period: 24 hour(s)
Unit: mg/l **Analytical monitoring:** no
SG : > 10000
Method: ETAD Fermentation tube method "Determination of damage to effluent bacteria by the Fermentation Tube Method"
Year: 1971 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: SG = Schaedlichkeitsgrenze (berechnet auf Testsubstanz)
Source: Brenntag AG Muehlheim a. d. Ruhr
Test condition: Mit CaCO₃ und NaOH neutralisierte 11.7 %ige Loesung; pH-Wert: 6.5

(16)

Type:
Species:
Exposure period:
Unit: **Analytical monitoring:**
Method:
Year: **GLP:**
Test substance:
Remark: Gegen Bakterien ergeben sich nach Neutralisation die geringen Schadwirkungen der Salze von Amidosulfons ure. Wird nicht neutralisiert, so ist der pH-Wert zu beachten. Die toxische Wirkung beginnt f r Baktierien unter pH 6,0 (steigend mit kleinerem pH-Wert).
Source: INTERORGANA Chemiehandel GmbH Köln

(12) (13)

4.5 Chronic Toxicity to Aquatic Organisms**4.5.1 Chronic Toxicity to Fish**

Species:
Endpoint:
Exposure period:
Unit: Analytical monitoring:
Method:
Year: GLP:
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

4.5.2 Chronic Toxicity to Aquatic Invertebrates

Species:
Endpoint:
Exposure period:
Unit: Analytical monitoring:
Method:
Year: GLP:
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

TERRESTRIAL ORGANISMS**4.6.1 Toxicity to Soil Dwelling Organisms**

Type:
Species:
Endpoint:
Exposure period:
Unit:
Method:
Year: GLP:
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

4.6.2 Toxicity to Terrestrial Plants**Species:****Endpoint:****Expos. period:****Unit:****Method:****Year:****GLP:****Test substance:****Remark:**

Sulphamic acid and some of its salts are reported to have herbicidal properties.

Ammonium sulphamate has been recognised as a non-selective weedkiller for more than 30 years.

Source:

Albright & Wilson Ltd. Warley

(23)

4.6.3 Toxicity to other Non-Mamm. Terrestrial Species**Species:****Endpoint:****Expos. period:****Unit:****Method:****Year:****GLP:****Test substance:****Remark:**

No data.

Source:

Albright & Wilson Ltd. Warley

4.7 Biological Effects Monitoring**Remark:**

No data.

Source:

Albright & Wilson Ltd. Warley

4.8 Biotransformation and Kinetics**Type:****Remark:**

No data.

Source:

Albright & Wilson Ltd. Warley

4.9 Additional Remarks**Source:**

Albright & Wilson Ltd. Warley

(24)

Remark:

Durch pH-Verschiebung toxisch für Wasserorganismen. Löst sich unter Bildung stark saurer Lösungen. Bei Zersetzung entstehendes Schwefeldi- und trioxid ist ab 0,5 mg/l tödlich für Fische, ab 50 mg/l für Algen.

Source:

INTERORGANA Chemiehandel GmbH Köln

(12) (13)

5.1 Acute Toxicity

5.1.1 Acute Oral Toxicity

Type: LD50
Species: rat
Sex:
Number of
Animals:
Vehicle:
Value: = 1600 mg/kg bw
Method:
Year: GLP:
Test substance:
Source: NORKEM LIMITED KNUTSFORD

Type: LD50
Species: rat
Sex:
Number of
Animals:
Vehicle:
Value: = 3160 mg/kg bw
Method: other: keine Daten
Year: GLP: no data
Test substance: no data
Source: Brenntag AG Muehlheim a. d. Ruhr

(25)

Type: LD50
Species: rat
Sex:
Number of
Animals:
Vehicle:
Value: = 2065 mg/kg bw
Method: other: Interne Richtlinie der Hoechst AG
Year: 1969 GLP: no
Test substance: as prescribed by 1.1 - 1.4
Source: Brenntag AG Muehlheim a. d. Ruhr

(26)

Type: LD50
Species: rat
Sex:
Number of
Animals:
Vehicle:
Value: > 2000 mg/kg bw
Method: OECD Guide-line 401 "Acute Oral Toxicity"
Year: 1984 GLP: yes
Test substance: as prescribed by 1.1 - 1.4
Source: Brenntag AG Muehlheim a. d. Ruhr

(27)

Type: LD50
Species: rat
Sex:
Number of Animals:
Vehicle:
Value: > 1600 mg/kg bw
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: Mortalitaet bei 1600 mg/kg: 2/8; male
Source: Brenntag AG Muehlheim a. d. Ruhr

(28)

Type: LD50
Species: rat
Sex:
Number of Animals:
Vehicle:
Value: = 1450 mg/kg bw
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Source: Brenntag AG Muehlheim a. d. Ruhr

(29)

Type: LD50
Species: rat
Sex:
Number of Animals:
Vehicle:
Value: ca. 2065 mg/kg bw
Method:
Year: **GLP:**
Test substance:
Source: INTERORGANA Chemiehandel GmbH Köln

Type: LD50
Species: rat
Sex:
Number of Animals:
Vehicle:
Value: = 2065 mg/kg bw
Method: other
Year: **GLP:** no data
Test substance: no data
Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.
Source: TRANSOL Chemiehandel GmbH Essen

Type: LD50
Species: rat
Sex:
Number of
Animals:
Vehicle:
Value: ca. 1600 mg/kg bw
Method:
Year: GLP:
Test substance:
Source: Telko Oy Helsinki

Type: LDLo
Species: rat
Sex:
Number of
Animals:
Vehicle:
Value: > 1600 mg/kg bw
Method: other: no data
Year: GLP: no data
Test substance: no data
Remark: Year: circa 1941

Source: Mortality at 1600 mg/kg - 2/8; male.
Albright & Wilson Ltd. Warley

(30)

Type: LDLo
Species: rat
Sex:
Number of
Animals:
Vehicle:
Value: ca. 1600 mg/kg bw
Method:
Year: GLP:
Test substance:
Source: INTERORGANA Chemiehandel GmbH Köln

Type: LD50
Species: mouse
Sex:
Number of
Animals:
Vehicle:
Value: = 1312 mg/kg bw
Method: other: keine Daten
Year: GLP: no data
Test substance: no data
Source: Brenntag AG Muehlheim a. d. Ruhr

(31)

Type: LD50
Species: guinea pig
Sex:
Number of Animals:
Vehicle:
Value: = 1050 mg/kg bw
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Source: Brenntag AG Muehlheim a. d. Ruhr

(31)

5.1.2 Acute Inhalation Toxicity

Type:
Species:
Sex:
Number of Animals:
Vehicle:
Exposure time:
Value:
Method:
Year: **GLP:**
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

5.1.3 Acute Dermal Toxicity

Type:
Species:
Sex:
Number of Animals:
Vehicle:
Value:
Method:
Year: **GLP:**
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

5.1.4 Acute Toxicity, other Routes

Type: LD50
Species: rat
Sex:
Number of Animals:
Vehicle:
Route of admin.: i.p.
Value: < 100 mg/kg bw
Method: No data
Year: **GLP:** no data
Test substance: no data
Remark: Year: circa 1941.

Source: Mortality at 100 mg/kg: 4/5, Male.
Albright & Wilson Ltd. Warley

(32)

Type: LD50
Species: rat
Sex:
Number of Animals:
Vehicle:
Route of admin.: i.p.
Value: < 100 mg/kg bw
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: Mortalitaet bei 100 mg/kg: 4/5; male
Source: Brenntag AG Muehlheim a. d. Ruhr

(28)

5.2 Corrosiveness and Irritation

5.2.1 Skin Irritation

Species: rabbit
Concentration:
Exposure:
Exposure Time:
Number of Animals:
PDII:
Result: not irritating
EC classificat.:
Method: other: Patch test, occlusive.
Year: 1978 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: Reaction time - 24 hrs; made doughy.
Source: Albright & Wilson Ltd. Warley

(33)

Species: rabbit
Concentration:

Exposure:
Exposure Time:
Number of
Animals:
PDII:
Result: highly irritating
EC classificat.:
Method: other: No data.
Year: GLP: no data
Test substance: no data
Remark: Reaction time: 24 hours, Dose: 500 mg.
Source: Albright & Wilson Ltd. Warley

(34)

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: 1984 GLP: yes
Test substance: as prescribed by 1.1 - 1.4
Remark: Reaction time: 4 hours.

Source: OECD Guideline 404 - "Acute Dermal Irritation/
Corrosion".
Albright & Wilson Ltd. Warley

(35)

Species: rabbit
Concentration:

Exposure:
Exposure Time:
Number of
Animals:
PDII:
Result: slightly irritating
EC classificat.:
Method: other: Patch test, occlusive.
Year: 1978 GLP: no
Test substance: as prescribed by 1.1 - 1.4
Remark: Reaction time 24 hrs., 15 per cent solution.
Source: Albright & Wilson Ltd. Warley

(36)

Species: rabbit
Concentration:

Exposure:
Exposure Time:
Number of Animals:

PDII:
Result: not irritating
EC classificat.:
Method: other: Patch-Test, okklusiv
Year: 1978 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: Einwirkzeit: 24 h; angeteigt
Source: Brenntag AG Muehlheim a. d. Ruhr

(37)

Species: rabbit
Concentration:

Exposure:
Exposure Time:
Number of Animals:

PDII:
Result: slightly irritating
EC classificat.:
Method: other: Patch-Test, okklusiv
Year: 1978 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: Einwirkzeit: 24 h; 15 %ige Loesung
Source: Brenntag AG Muehlheim a. d. Ruhr

(37)

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: 1984 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: Einwirkzeit: 4 h
Source: Brenntag AG Muehlheim a. d. Ruhr

(38)

Species: rabbit
Concentration:

Exposure:
Exposure Time:
Number of Animals:
PDII:
Result:
EC classificat.:
Method: other: Epikutantest
Year: 1969 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: 0.5 ml/d; 5 und 10 %ige Loesung; 5 d; bei der 10 %igen Loesung nach der 5. Behandlung leichte Roetung
Source: Brenntag AG Muehlheim a. d. Ruhr

(26)

Species: rabbit
Concentration:

Exposure:
Exposure Time:
Number of Animals:
PDII:
Result: highly irritating
EC classificat.:
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: Einwirkzeit: 24 h; Dosis 500 mg
Source: Brenntag AG Muehlheim a. d. Ruhr

(25)

Species: rat
Concentration:

Exposure:
Exposure Time:
Number of Animals:
PDII:
Result: irritating
EC classificat.: irritating
Method: other
Year: **GLP:** no data
Test substance: no data
Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethode gemacht werden.
Source: TRANSOL Chemiehhandel GmbH Essen

Species:
Concentration:

Exposure:
Exposure Time:
Number of
Animals:
PDII:
Result:
EC classificat.:
Method:
Year: **GLP:**
Test substance:
Remark: Reizt die Haut und die Schleimh ute
Source: INTERORGANA Chemiehandel GmbH Köln

5.2.2 Eye Irritation

Species: rabbit
Concentration:
Dose:
Exposure Time:
Comment:
Number of
Animals:
Result:
EC classificat.:
Method: other: no data
Year: **GLP:** no data
Test substance: no data
Remark: Year: circa 1941

 0.5 ml of 4% solution introduced into the eyes of
 five rabbits caused moderate eye irritation.
Source: Albright & Wilson Ltd. Warley (39)

Species: rabbit
Concentration:
Dose:
Exposure Time:
Comment:
Number of
Animals:
Result: irritating
EC classificat.: risk of serious damage to eyes
Method: OECD Guide-line 405 "Acute Eye Irritation/Corrosion"
Year: 1984 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: OECD Guideline 405 - Acute eye irritation/corrosion.

 Reaction time: 24 hrs; R41 - danger of serious eye
 damage.
Source: Albright & Wilson Ltd. Warley (40)

Species: rabbit
Concentration:
Dose:
Exposure Time:
Comment:
Number of Animals:
Result: highly irritating
EC classificat.:
Method: other: Interne Richtlinie der Hoechst AG
Year: 1978 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: Einwirkzeit: 24 h; angeteigt
Source: Brenntag AG Muehlheim a. d. Ruhr

(37)

Species: rabbit
Concentration:
Dose:
Exposure Time:
Comment:
Number of Animals:
Result: moderately irritating
EC classificat.:
Method: other: Interne Richtlinie der Hoechst AG
Year: 1978 **GLP:** no
Test substance: as prescribed by 1.1 - 1.4
Remark: Einwirkzeit: 24 h; 15 %ige Loesung
Source: Brenntag AG Muehlheim a. d. Ruhr

(37)

Species: rabbit
Concentration:
Dose:
Exposure Time:
Comment:
Number of Animals:
Result: irritating
EC classificat.: risk of serious damage to eyes
Method: OECD Guide-line 405 "Acute Eye Irritation/Corrosion"
Year: 1984 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: Einwirkzeit: 24 h; R 41 - Gefahr ernster Augenschaeden
Source: Brenntag AG Muehlheim a. d. Ruhr

(41)

Species: rabbit
Concentration:
Dose:
Exposure Time:
Comment:
Number of Animals:
Result: highly irritating
EC classificat.:
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: Einwirkzeit: 24 h; Dosis 250 Mikrogramm
Source: Brenntag AG Muehlheim a. d. Ruhr

(25)

Species: rabbit
Concentration:
Dose:
Exposure Time:
Comment:
Number of Animals:
Result:
EC classificat.:
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: 0.5 ml einer 4 %-Lösung in Auge von 5 Tieren eingebracht;
maessige Bindehautreizung
Source: Brenntag AG Muehlheim a. d. Ruhr

(28)

Species: other: nicht bekannt
Concentration:
Dose:
Exposure Time:
Comment:
Number of Animals:
Result: irritating
EC classificat.: irritating
Method: other
Year: **GLP:** no data
Test substance: no data
Remark: Alle Werte laut Lieferantenangaben. Es können keine
Aussagen zu den Prüfmethode gemacht werden.
Source: TRANSOL Chemiehandel GmbH Essen

Species:
Concentration:
Dose:
Exposure Time:
Comment:
Number of Animals:
Result:
EC classificat.:
Method:
Year: **GLP:**
Test substance:
Remark: Reizt die Augen
Source: INTERORGANA Chemiehandel GmbH Köln

5.3 Sensitization

Type:
Species:
Number of Animals:
Vehicle:
Result:
Classification:
Method:
Year: **GLP:**
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

5.4 Repeated Dose Toxicity

Species: rat **Sex:** male/female
Strain: Wistar
Route of admin.: oral feed
Exposure period: 90 days
Frequency of treatment: Daily
Post. obs. period:
Doses: 0, 5000, 10000, 20000 ppm
Control Group: yes
NOAEL: 10000 ppm
Method: OECD Guide-line 408 "Subchronic Oral Toxicity - Rodent: 90-day Study"
Year: 1987 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: 30 animals/gender/group.
Result: At 20000 ppm delayed growth and slightly reduced food ingestion, as well as weight increase in different relative organs - some animals displayed slight fattiness in kidney tubules (completely reversible).
Source: Albright & Wilson Ltd. Warley

(42)

Species: rat **Sex:** male
Strain:
Route of admin.: oral feed
Exposure period: 105 days
Frequency of treatment: Daily
Post. obs. period:
Doses: 10000, 20000 mg/kg
Control Group: yes
NOAEL: 10000 mg/kg
Method: other: no data
Year: **GLP:** no data
Test substance: no data
Remark: Five animals/group. 10000 mg/kg in food corresponds to about 1000 mg/kg KgW (estimated dose according to Lehman [1984]: Assoc. Food Drug. Off. Bull 18,66).
Result: Inhibition of growth at 20000 mg/Kg in food (about 2000 mg/Kg KgW).
Source: Albright & Wilson Ltd. Warley

(43)

Species: rat **Sex:** male
Strain:
Route of admin.: oral feed
Exposure period: 105 Tage
Frequency of treatment: taeglich
Post. obs. period:
Doses: 10000, 20000 mg/kg
Control Group: yes
NOAEL: 10000 mg/kg
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Remark: 5 Tiere/Gruppe; 10000 mg/kg im Futter entspricht ca. 1000 mg/kg Kgw (Dosisabschaetzung nach Lehman (1954): Assoc. Food Drug Off. Q. Bull. 18, 66)
Result: Bei 20000 mg/kg im Futter (ca. 2000 mg/kg Kgw) Wachstumshemmung.
Source: Brenntag AG Muehlheim a. d. Ruhr

(28)

Species: rat **Sex:** male/female
Strain: Wistar
Route of admin.: oral feed
Exposure period: 90 Tage
Frequency of treatment: taeglich
Post. obs. period:
Doses: 0, 5000, 10000, 20000 ppm
Control Group: yes
NOAEL: 10000 ppm
Method: OECD Guide-line 408 "Subchronic Oral Toxicity - Rodent: 90-day Study"
Year: 1987 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: 30 Tiere/Geschlecht/Gruppe
Result: Bei 20000 ppm verzogertes Wachstum und leicht verminderte Futteraufnahme sowie Erhoehung verschiedener relativer Organgewichte, ausserdem bei einigen Tieren leichte Verfettung von Nierentubuli (vollstaendig reversibel).
Source: Brenntag AG Muehlheim a. d. Ruhr

(44)

Species: dog **Sex:**
Strain:
Route of admin.: oral unspecified
Exposure period: 6 days
Frequency of treatment: Daily
Post. obs. period:
Doses: 1000 mg/day
Control Group: no data specified
Method: other: no data
Year: **GLP:** no data
Test substance: no data
Remark: Macroscopic: No findings;
Microscopic: Very slight liver damage.
Source: Albright & Wilson Ltd. Warley

(45)

Species: dog **Sex:**
Strain:
Route of admin.: oral unspecified
Exposure period: 6 Tage
Frequency of treatment: taeglich
Post. obs. period:
Doses: 1000 mg/Tag
Control Group: no data specified
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Result: Makroskopisch keine Befunde, mikroskopisch ganz leichte Leberschaedigung.
Source: Brenntag AG Muehlheim a. d. Ruhr

(46)

5.5 Genetic Toxicity 'in Vitro'

Type: Ames test
System of testing: Salmonella Typhimurium TA98, TA100, TA1535, TA1537, 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
Remark: OECD Guideline 471: "Genetic Toxicology: Salmonella Typhimurium Reverse Mutation Assay".
Source: Albright & Wilson Ltd. Warley

(47)

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: 1985 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Source: Brenntag AG Muehlheim a. d. Ruhr

(48)

Type: Ames test
System of testing: Escherichia Coli WP2uvrA
Concentration:
Metabolic activation: with and without
Result: negative
Method: OECD Guide-line 472 "Genetic Toxicology: Escherichia coli Reverse Mutation Assay"
Year: 1985 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: OECD Guideline 472 "Genetic Toxicology: E. Coli Reverse Mutation Assay".
Source: Albright & Wilson Ltd. Warley (49)

Type: Ames test
System of testing: Escherichia coli WP2uvrA
Concentration:
Metabolic activation: with and without
Result: negative
Method: OECD Guide-line 472 "Genetic Toxicology: Escherichia coli Reverse Mutation Assay"
Year: 1985 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Source: Brenntag AG Muehlheim a. d. Ruhr (48)

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: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Source: Brenntag AG Muehlheim a. d. Ruhr (50)

Type: DNA damage and repair assay
System of testing: Escherichia coli WP2, WP67uvrA polA, CM871uvrA recA lexA
Concentration:
Metabolic activation: with and without
Result: negative
Method: other: keine Daten
Year: **GLP:** no data
Test substance: no data
Source: Brenntag AG Muehlheim a. d. Ruhr (51)

5.6 Genetic Toxicity 'in Vivo'

Type: Micronucleus assay
Species: mouse **Sex:**
Strain:
Route of admin.: oral unspecified
Exposure period:
Doses: 200 mg/Kg Kgw
Result:
Method: OECD Guide-line 474 "Genetic Toxicology: Micronucleus Test"
Year: 1985 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Remark: OECD Guideline 474 "Genetic Toxicology. Micronucleus Test".
Result: Negative.
Source: Albright & Wilson Ltd. Warley

(52)

Type: Micronucleus assay
Species: mouse **Sex:**
Strain:
Route of admin.: oral unspecified
Exposure period:
Doses: 200 mg/kg Kgw.
Result:
Method: OECD Guide-line 474 "Genetic Toxicology: Micronucleus Test"
Year: 1985 **GLP:** yes
Test substance: as prescribed by 1.1 - 1.4
Result: Negativ
Source: Brenntag AG Muehlheim a. d. Ruhr

(53)

5.7 Carcinogenicity

Species: **Sex:**
Strain:
Route of admin.:
Exposure period:
Frequency of treatment:
Post. obs. period:
Doses:
Result:
Control Group:
Method:
Year: **GLP:**
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

5.8 Toxicity to Reproduction

Type:
Species: **Sex:**
Strain:
Route of admin.:
Exposure Period:
Frequency of treatment:
Duration of test:
Doses:
Control Group:
Method:
Year: **GLP:**
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

5.9 Developmental Toxicity/Teratogenicity

Species: **Sex:**
Strain:
Route of admin.:
Exposure period:
Frequency of treatment:
Duration of test:
Doses:
Control Group:
Method:
Year: **GLP:**
Test substance:
Remark: No data.
Source: Albright & Wilson Ltd. Warley

5.10 Other Relevant Information

Type: other: Hautreizung
Remark: Jungen m NMRI-Maeusen wurden 0.01 ml einer 0.001 bzw. 0.04 M Loesung intracutan in die depilierte Rueckenhaut appliziert; nach 24 h keine bzw. maessige Reizung, vergleichbar mit der bei substanzfreier Pufferloesung mit entsprechendem pH (3 bzw. 2.5) und Pufferkapazitaet (3 bzw. 15-20 mval/pH-Einheit/l), d.h. die Hautreizwirkung ist auf den unphysiologischen pH-Wert zurueckzufuehren.
Source: Brenntag AG Muehlheim a. d. Ruhr

(54)

Type: other: Schleimhautreizung
Remark: Alle Werte laut Lieferantenangaben. Es können keine Aussagen zu den Prüfmethoden gemacht werden.
Result: reizend
Source: TRANSOL Chemiehandel GmbH Essen
Test condition: Spezies: Ratte

Type: other: skin irritation
Remark: 0.01 ml of a 0.001 and 0.04M solution, respectively, applied to young m NMR1 mice intradermally into the depilated skin of the back; after 24 hours no irritation and moderate irritation, respectively, comparable to the irritation caused by substanceless buffer solution with corresponding pH (3 and 2.5 respectively) and buffer capacity (3 and 15-20 mval/pH-units/l, i.e. the effect of skin irritation is to be put down to the nonphysiological pH value.
Source: Albright & Wilson Ltd. Warley

(55)

5.11 Experience with Human Exposure

Remark: No data.
Source: Albright & Wilson Ltd. Warley

- (1) Hoechst AG (1990): Sicherheitsdatenblatt (06.07.1990)
- (2) Windholz (1976): The Merck Index, 9th ed., Merck & Co., Rayway, N.J., 115
- (3) Albright & Wilson MSDS, July 1993, Ref. No: 4600.
- (4) Fiche Toxicologue No. 209 INRS, Paris.
- (5) Albright & Wilson MSDS. Ref. No. 4600, July 1993.
- (6) Fiche Toxicologique No. 209, INRS, Paris.
- (7) Albright & Wilson MSDS, July 1993, Ref. 4600.
Hoechst AG, MSDS, 06.07.1990
- (8) Hoechst AG (1991) Mitteilung der Abt. ucv (6/5/91).
- (9) Hoechst AG (1991): Mitteilung der Abt. UCV (06.05.1991)
- (10) 1. Notley (1973): Trans. Inst. Metal Finish 52, 78.
2. Oberhauser B. and K.E. Urbina C. Anales facultad filosof. y educacion, Univ. Chile, seccion quim. 3, 119 - 29 (1946) - The hydrolytic decomposition of sulphamic acid.
3. Windholz (1976): The Merck Index, 9th Ed., Merck & Co., Rayway, N>J> 115.
4. Albright & Wilson: Unpublished data 11.87.
- (11) Notley (1973): Trans. Inst. Metal Finish. 52, 78
- (12) Hommel Bl. 590; MCI
- (13) Roth-Wassergef hrdende Stoffe-Band 3-Seite 18-Stand 4/89
- (14) Curtis, Ward (1981): J. Hydrol. 51, 359-367
- (15) Curtis, Curran, Ward (1981): Proc. 1980 Nat. Conf. Control of Hazardous Material Spills, Louisville, KY, 284-287
- (16) Hoechst AG (1971): Unveroeffentlichte Untersuchung (25.11.1971)
- (17) Curtis, Ward (1981): J. Hydrol. 51, 359-367.
- (18) Curtis, Curran, Ward (1981): Proc. 1980 Nat. Conf. Control of Hazardous Materials Spills, Louisville, KY, 284-287.

- (19) Hoechst AG (1971): Unpublished Investigation (25.11.1971).
- (20) Hoechst AG (1988): Unveroeffentlichte Untersuchung (V 88-940-B)
- (21) Hoechst AG (1988): Unpublished investigation. (V88-940-B).
- (22) Hoechst AG (1971): Unpublished investigation, 25/11/71.
- (23) 1. The chemical control of weeds. IV. Sulfamic acid as a herbicide.
F. Fromm. Ciencia y Tecnica (Puerto Rico) 1, 69-70 (1943).
2. Sulfamic Acid. An Industrial Review,
M.E. Cupery and W.E. Gordon, Industrial and Engineering Chemistry, Vol. 34, No. 7, p. 792-797, July 1942.
- (24) 1. Albright & Wilson Ltd., Unpublished data, 11.87.
2. Albright & Wilson Ltd., Unpublished report, 2.91.

Remarks:

Sulphamic acid contains no carbon, consequently the term biodegradable is not applicable. It degrades slowly by natural hydrolysis to ammonium hydrogen sulphate with half life greater than 12 months at 25C.

From studies commissioned by A&W it is concluded that at concentrations arising from domestic use, allowing for dilution, sulphamic acid should have no deleterious effect on effluent sludge treatment.

The acid exerts no Biochemical Oxygen Demand (BOD).

- (25) Sb. Vysledku Toxikologickeho Vysetreni Latek a Prinpravku (1972): 18; zitiert in: RTECS
- (26) Hoechst AG (1969): Unveroeffentlichte Untersuchung (69.0143)
- (27) Hoechst AG (1984): Unveroeffentlichte Untersuchung (84.0916)
- (28) Ambrose (1943): J. Ind. Hyg. Toxicol. 25, 26-28
- (29) Gig. Sanit. 52(10): 88-91 (1987)

- (30) Ambrose B.M. J. Ind. Hyg. Tox. Vol. 25, p.26 - 28 (1943).
- (31) Dschuraewa (1987): Gig. Sanit. 52, 88-89
- (32) Ambrose B.M. J. Ind. Hyg. Tox. Vol. 25, p.26-28 (1943).
- (33) Hoechst AG (1978) - Unpublished investigation (78.0511).
- (34) Fiche Toxicologique No. 209, I.N.R.S. Paris.
- (35) Hoechst AG (1984): Unpublished investigation (84.0023).
- (36) Hoechst (AG): Unpublished Investigation (78.0511).
- (37) Hoechst AG (1978): Unveroeffentlichte Untersuchung (78.0511)
- (38) Hoechst AG (1984): Unveroeffentlichte Untersuchung (84.0023)
- (39) Ambrose B.M., J. Ind. Hyg. Tox. Vol. 25, p.26-28 (1943).
- (40) Hoechst AG (1984) Unpublished investigation (84.0947).
- (41) Hoechst AG (1984): Unveroeffentlichte Untersuchung (84.0947)
- (42) Hoechst AG (1987): Unpublished Investigation (87.0053).
- (43) Ambrose B.M. J. Ind. Hyg. Tox. Vol. 25, p.26 - 28 (1943).
- (44) Hoechst AG (1987): Unveroeffentlichte Untersuchung (87.0053)
- (45) Haskell Lab: Unpubl. data; Zitiert in: Graham, Du Pont de Nemours and Co.

Haskell Lab: 1977 (HOE 85.00088).
- (46) Haskell Lab.: Unpubl. Data; zitiert in: Graham, Du Pont de Nemours and Comp., Haskell Lab., 1977 (HOE 85.0088)
- (47) Hoechst AG (1985): Unpublished Investigation (85.0780)
- (48) Hoechst AG (1985): Unveroeffentlichte Untersuchung (85.0780)
- (49) Hoechst AG (1985): Unpublished Investigation (85.0780).
- (50) De Flora (1981): Carcinogenesis 2, 283-298
- (51) De Flora et al. (1984): Mutat. Res. 133, 161-198
- (52) Hoechst AG (1985): Unpublished Investigation (85.0661).
- (53) Hoechst AG (1985): Unveroeffentlichte Untersuchung (85.0661)

(54) Bucher et al. (1979): Agents and Actions 9, 124-132

(55) Bucher et al (1979): Agents and Actions 9, 124 - 132.

7.1 Risk Assessment

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