



SAFETY DATA SHEET DEQUEST 7000

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name DEQUEST 7000

Product number 59735

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Chemical

1.3. Details of the supplier of the safety data sheet

Supplier Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
SDS.EMEA@univarsolutions.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 59735

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Met. Corr. 1 - H290

Health hazards Not Classified

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements H290 May be corrosive to metals.

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Precautionary statements

P103 Read label before use.
 P102 Keep out of reach of children.
 P101 If medical advice is needed, have product container or label at hand.
 P234 Keep only in original packaging.
 P390 Absorb spillage to prevent material damage.
 P406 Store in a corrosion-resistant container with a resistant inner liner.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID			49 - 51%
CAS number: 37971-36-1	EC number: 253-733-5	REACH registration number: 01-2119436643-39-XXXX	
Classification Met. Corr. 1 - H290 Eye Irrit. 2 - H319			

The full text for all hazard statements is displayed in Section 16.

Composition comments

The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Get medical attention if symptoms are severe or persist. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Ingestion	Rinse mouth thoroughly with water. Remove any dentures. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Give plenty of water to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms are severe or persist. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
Skin contact	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Get medical attention if any discomfort continues. Wash clothing and clean shoes thoroughly before reuse.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Ingestion	Overexposure may cause the following adverse effects: Stomach pain.
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Eye contact Overexposure may cause the following adverse effects: Profuse watering of the eyes. Redness. Irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically. Contact specialist immediately poison treatment if large quantities have been ingested or inhaled

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards When heated and in case of fire, toxic vapours/gases may be formed. Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Phosphine (PH₃). Oxides of the following substances: Carbon. Phosphorus.

5.3. Advice for firefighters

Protective actions during firefighting No action shall be taken without appropriate training or involving any personal risk. Evacuate area.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Keep unnecessary and unprotected personnel away from the spillage. Do not touch or walk into spilled material. If ventilation is inadequate, suitable respiratory protection must be worn.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if safe to do so. Move containers from spillage area. Approach the spillage from upwind. Avoid the spillage or runoff entering drains, sewers or watercourses. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions

Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. Keep only in the original container. Container must be kept tightly closed when not in use. Product residues retained in emptied containers can be hazardous. Do not reuse empty containers. Avoid the spillage or runoff entering drains, sewers or watercourses.

Advice on general occupational hygiene

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene procedures should be implemented.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from sunlight. Store away from incompatible materials (see Section 10). Keep away from food and drink. Store in corrosive resistant container with a resistant inner liner. Container must be kept tightly closed when not in use. Keep containers upright. Only store in correctly labelled containers. Use appropriate containment to avoid environmental contamination. Store at temperatures above -10°C.

7.3. Specific end use(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Ingredient comments

No exposure limits known for ingredient(s).

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID (CAS: 37971-36-1)

DNEL

Workers - Inhalation; Long term systemic effects: 15 mg/m³
 Workers - Inhalation; Short term systemic effects: 158 mg/m³
 Workers - Dermal; Long term systemic effects: 4.2 mg/kg/day
 Workers - Dermal; Short term systemic effects: 80 mg/kg/day
 General population - Oral; Short term systemic effects: 65 mg/kg/day
 General population - Inhalation; Long term systemic effects: 3.7 mg/m³
 General population - Inhalation; Short term systemic effects: 79 mg/m³
 General population - Dermal; Long term systemic effects: 2.1 mg/kg/day
 General population - Dermal; Short term systemic effects: 40 mg/kg/day
 General population - Oral; Long term systemic effects: 2.1 mg/kg/day

PNEC

- Fresh water; 3.33 mg/l
 - marine water; 0.33 mg/l
 - Intermittent release; 10.42 mg/l
 - STP; 50.4 mg/l
 - Sediment (Freshwater); 1.47 mg/kg
 - Soil; 0.491 mg/kg

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls	Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.
Hygiene measures	When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Eye wash facilities and emergency shower must be available when handling this product.
Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. If ventilation is inadequate, suitable respiratory protection must be worn. Wear self-contained breathing apparatus. EN 136/140/141/145/143/149
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Characteristic.
Odour threshold	No information available.
pH	pH (diluted solution): 1.5 - 2.0 (10 g/l)
Melting point	- 15°C/5°F
Pour Point	No information available.
Freezing Point	No information available.
Initial boiling point and range	100°C/212°F
Flash point	> 100°C/212°F
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.

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Other flammability	No information available.
Vapour pressure	19.6 hPa @ 20°C
Vapour density	No information available.
Relative density	1.270 - 1.300 @ 20°C/68°F
Bulk density	No information available.
Solubility(ies)	Miscible with water.
Partition coefficient	log Pow: -1.36
Auto-ignition temperature	> 500°C/> 932°F
Decomposition Temperature	100°C/212°F
Viscosity	10 - 25 mPa s @ 25°C/77°F 1.28 mm ² /s
Explosive properties	No information available.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.
<u>9.2. Other information</u>	
Other information	Not determined.
Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No test data specifically related to reactivity available for this product or its ingredients.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
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10.4. Conditions to avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight.
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10.5. Incompatible materials

Materials to avoid	Strong alkalis. Metals
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10.6. Hazardous decomposition products

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Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Phosphine (PH₃). Oxides of the following substances: Carbon. Phosphorus.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 2000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Not determined.

Skin corrosion/irritation

Animal data Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Not irritating.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No information available.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic. Bacterial reverse mutation test: Negative. OECD 471

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No evidence of reproductive toxicity in animal studies.

Reproductive toxicity - development No evidence of reproductive toxicity in animal studies.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation

Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion

May cause chemical burns in mouth and throat. Overexposure may cause the following adverse effects: Stomach pain.

Skin contact

Skin irritation should not occur when used as recommended.

Eye contact

Overexposure may cause the following adverse effects: Profuse watering of the eyes. Redness. Irritation.

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Toxicological information on ingredients.

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID

Skin corrosion/irritation

Skin corrosion/irritation No information available.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No information available.

Germ cell mutagenicity

Genotoxicity - in vitro No information available.

Carcinogenicity

Carcinogenicity No information available.

Reproductive toxicity

Reproductive toxicity - fertility No information available.

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion May cause discomfort if swallowed.

Skin contact May be slightly irritating to skin.

Eye contact Causes serious eye irritation.

SECTION 12: Ecological information

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

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Toxicity Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 48 hours: > 3440 mg/l, Oncorhynchus mykiss (Rainbow trout)
LC₅₀, 48 hours: > 500 mg/l, Fish
LC₅₀, 96 hours: > 1042 mg/l, Brachydanio rerio (Zebra Fish)
OECD 203

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: > 1071 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants EC₅₀, 72 hours: > 140 mg/l, Scenedesmus subspicatus
OECD 201

Ecological information on ingredients.

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID

Toxicity Not considered toxic to fish.

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

Ecological information on ingredients.

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID

Persistence and degradability There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: -1.36

Ecological information on ingredients.

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient log Pow: - 1.36

12.4. Mobility in soil

Mobility Miscible with water.

Ecological information on ingredients.

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID

Mobility No information available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID

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Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects No information required.

Ecological information on ingredients.

2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID

Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number

UN No. (ADR/RID) 3265

UN No. (IMDG) 3265

UN No. (ICAO) 3265

UN No. (ADN) 3265

14.2. UN proper shipping name

Proper shipping name (ADR/RID) CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS 2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID)

Proper shipping name (IMDG) CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS 2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID)

Proper shipping name (ICAO) CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS 2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID)

Proper shipping name (ADN) CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (CONTAINS 2 PHOSPHONOBUTANE 1,2,4 TRICARBOXYLIC ACID)

14.3. Transport hazard class(es)

ADR/RID class 8

ADR/RID classification code C3

ADR/RID label 8

IMDG class 8

ICAO class/division 8

ADN class 8

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Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

IMDG Code segregation group	1. Acids
EmS	F-A, S-B
ADR transport category	3
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.
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15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

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US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

All the ingredients are listed or exempt.

Japan - ENCS

All the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines – PICCS

All the ingredients are listed or exempt.

New Zealand - NZIOC

All the ingredients are listed or exempt.

Taiwan - TCSI

All the ingredients are listed or exempt.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Classification procedures according to Regulation (EC) 1272/2008

Met. Corr. 1 - H290: Expert judgement.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

10/05/2022

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Version number	2.000
Supersedes date	16/02/2020
SDS number	59735
SDS status	Approved.
Hazard statements in full	H290 May be corrosive to metals. H319 Causes serious eye irritation.
Signature	Lisa Bland

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.