

SAFETY DATA SHEET

BRAWN

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

1.1. Product identifier

Product name BRAWN

Product number B7413

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

Identified uses Detergent. Cleaning agent.

1.3. Details of the supplier of the safety data sheet

Supplier ORAPI APPLIED LIMITED,
SPRING ROAD,
SMETHWICK,
WEST MIDLANDS, B66 1PT, ENGLAND
Tel: 0121-525-4000
Fax: 0121-525-4919
lee.baughan@orapiapplied.com

Contact person Lee Baughan

1.4. Emergency telephone number

Emergency telephone 0121 525 4000 (09:00 - 17:00 hrs)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Met. Corr. 1 - H290

Health hazards Skin Corr. 1A - H314 Eye Dam. 1 - H318

Environmental hazards Not Classified

Human health Corrosive. Prolonged contact causes serious eye and tissue damage. Corrosive to skin and eyes.

Physicochemical In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air.

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

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Precautionary statements	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container in accordance with national regulations.
Contains	SODIUM HYDROXIDE
Supplementary precautionary statements	P234 Keep only in original container. P260 Do not breathe vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P310 Immediately call a POISON CENTER/ doctor. P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage. P405 Store locked up. P406 Store in corrosive resistant container with a resistant inner liner.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM HYDROXIDE			10-30%
CAS number: 1310-73-2	EC number: 215-185-5	REACH registration number: 01-2119457892-27-XXXX	
Classification Met. Corr. 1 - H290 Skin Corr. 1A - H314 Eye Dam. 1 - H318			

SODIUM XYLENE SULPHONATE			1-3%
CAS number: 1300-72-7	EC number: 215-090-9	REACH registration number: 01-2119513350-56-XXXX	
Classification Eye Irrit. 2 - H319			

2-BUTOXYETHANOL			1-3%
CAS number: 111-76-2	EC number: 203-905-0	REACH registration number: 01-2119475108-36-xxxx	
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319			

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

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General information	Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If in doubt, get medical attention promptly.
Ingestion	Do not induce vomiting. Get medical attention immediately. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Give milk instead of water if readily available.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

Inhalation	No specific symptoms known.
Ingestion	Chemical burns. May cause chemical burns in mouth and throat.
Skin contact	Chemical burns. Burns can occur.
Eye contact	Chemical burns. Severe irritation, burning and tearing.

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

Notes for the doctor	No specific recommendations.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	The product is not flammable.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting	Move containers from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours.
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	Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Avoid contact with skin, eyes and clothing.
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6.2. Environmental precautions

Environmental precautions	Avoid discharge to the aquatic environment. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

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Methods for cleaning up	Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Stop leak if safe to do so. Do not touch or walk into spilled material. Inform authorities if large amounts are involved. 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. Flush contaminated area with plenty of water.
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6.4. Reference to other sections

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Read and follow manufacturer's recommendations. Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist. Avoid contact with skin, eyes and clothing. Avoid spilling. Avoid freezing.
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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. Avoid freezing.
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Storage class	Corrosive storage.
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7.3. Specific end use(s)

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

SODIUM HYDROXIDE

Short-term exposure limit (15-minute): WEL 2 mg/m³

2-BUTOXYETHANOL

Long-term exposure limit (8-hour TWA): WEL 25 ppm 123 mg/m³

Short-term exposure limit (15-minute): WEL 50 ppm 246 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

SODIUM HYDROXIDE (CAS: 1310-73-2)

DNEL	Workers - Inhalation; Long term local effects: 1 mg/m ³ General population - Inhalation; Long term local effects: 1 mg/m ³
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SODIUM XYLENE SULPHONATE (CAS: 1300-72-7)

DNEL	Workers - Inhalation; Long term systemic effects: 26.9 mg/m ³ Workers - Dermal; Long term systemic effects: 136.25 mg/kg/day Workers - Dermal; Long term local effects: 0.096 mg/cm ² General population - Inhalation; Long term systemic effects: 6.6 mg/m ³ General population - Dermal; Long term systemic effects: 68.1 mg/kg/day General population - Dermal; Long term local effects: 0.048 mg/cm ² General population - Oral; Long term systemic effects: 3.8 mg/kg/day
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PNEC

- Fresh water; 0.23 mg/l
- Marine water; 0.023 mg/l
- Intermittent release; 0.23 mg/l
- STP; 100 mg/l
- Sediment (Freshwater); 0.862 mg/kg
- Sediment (Marinewater); 0.086 mg/kg
- Soil; 0.037 mg/kg

2-BUTOXYETHANOL (CAS: 111-76-2)

DNEL

- Industry - Dermal; Short term : 89 mg/kg/day
- Industry - Inhalation; Short term : 663 mg/m³
- Industry - Dermal; Long term : 75 mg/kg/day
- Industry - Inhalation; Long term : 98 mg/m³
- Consumer - Dermal; Short term : 44.5 mg/kg/day
- Consumer - Inhalation; Short term : 426 mg/m³
- Consumer - Oral; Short term : 13.4 mg/kg/day
- Consumer - Dermal; Long term : 38 mg/kg/day
- Consumer - Oral; Long term : 3.2 mg/kg/day

PNEC

- Fresh water; 8.8 mg/l
- Marine water; 0.88 mg/l
- Sediment; 8.14 mg/kg
- Soil; 2.8 mg/kg
- STP; 463 mg/l

SODIUM DODECYL BENZENE SULPHONATE (CAS: 25155-30-0)

DNEL

- Workers - Inhalation; Long term systemic effects: 52 mg/m³
- Workers - Inhalation; Short term systemic effects: 52 mg/m³
- Workers - Inhalation; Long term local effects: 52 mg/m³
- Workers - Inhalation; Short term local effects: 52 mg/m³
- Workers - Dermal; Long term systemic effects: 57.2 mg/kg/day
- Workers - Dermal; Short term systemic effects: 80 mg/kg/day
- Workers - Dermal; Long term local effects: 1.57 mg/cm²
- Workers - Dermal; Short term local effects: 1.57 mg/cm²
- General population - Inhalation; Long term systemic effects: 26 mg/m³
- General population - Inhalation; Short term systemic effects: 26 mg/m³
- General population - Inhalation; Long term local effects: 26 mg/m³
- General population - Inhalation; Short term local effects: 26 mg/m³
- General population - Dermal; Long term systemic effects: 28.6 mg/kg/day
- General population - Dermal; Short term systemic effects: 40 mg/kg/day
- General population - Dermal; Long term local effects: 0.787 mg/cm²
- General population - Dermal; Short term local effects: 0.787 mg/cm²
- General population - Oral; Long term systemic effects: 13 mg/kg/day
- General population - Oral; Short term systemic effects: 13 mg/kg/day

PNEC

- Fresh water; 0.693 mg/l
- Marine water; 1 mg/l
- Intermittent release; 0.654 mg/l
- STP; 50 mg/l
- Sediment (Freshwater); 27.5 mg/kg
- Sediment (Marinewater); 2.75 mg/kg
- Soil; 25 mg/kg

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TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (CAS: 64-02-8)

DNEL	Workers - Inhalation; Long term local effects: 1.5 mg/m³ Workers - Inhalation; Short term local effects: 3 mg/m³ General population - Inhalation; Long term local effects: 0.6 mg/m³ General population - Inhalation; Short term local effects: 1.2 mg/m³ General population - Oral; Long term systemic effects: 25 mg/kg/day
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PNEC	- Fresh water; 2.2 mg/l - Marine water; 0.22 mg/l - Intermittent release; 1.2 mg/l - STP; 43 mg/l - Soil; 0.72 mg/kg
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TRISODIUM NITRILOTRIACETATE (CAS: 5064-31-3)

DNEL	Workers - Inhalation; Long term systemic effects: 3.5 mg/m³ General population - Inhalation; Short term systemic effects: 1.75 mg/m³ General population - Oral; Long term systemic effects: 0.5 mg/kg/day
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PNEC	- Fresh water; 0.93 mg/l - Marine water; 0.093 mg/l - STP; 540 mg/l - Intermittent release; 0.915 mg/l - Sediment (Freshwater); 3.64 mg/kg - Sediment (Marinewater); 0.364 mg/kg - Soil; 0.182 mg/kg
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8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

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: Wear chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. Thickness: ≥ 0.4 mm To protect hands from chemicals, gloves should comply with European Standard EN374. The breakthrough time for any glove material may be different for different glove manufacturers. When used with mixtures, the protection time of gloves cannot be accurately estimated.

Other skin and body protection

Wear appropriate clothing to prevent reasonably probable skin contact. Wear apron or protective clothing in case of contact.

Hygiene measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection

Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

SECTION 9: Physical and Chemical Properties

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9.1. Information on basic physical and chemical properties

Appearance	Gel
Colour	Light (or pale). Amber.
Odour	Glycol Ether.
pH	pH (concentrated solution): >13
Relative density	1.22 @ 20°C
Solubility(ies)	Miscible with water.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Reactions with the following materials may generate heat: Strong acids. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air.
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10.2. Chemical stability

Stability	No particular stability concerns.
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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. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air.
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10.4. Conditions to avoid

Conditions to avoid	Avoid contact with acids. In contact with some metals can generate hydrogen gas, which can form explosive mixtures with air.
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10.5. Incompatible materials

Materials to avoid	Strong acids. Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Heating may generate the following products: Oxides of carbon. Oxides of nitrogen.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	No information available.
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Acute toxicity - oral

ATE oral (mg/kg)	92,642.34
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Inhalation	Vapours may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing.
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Ingestion	Causes severe burns. May cause chemical burns in mouth and throat. Swallowing concentrated chemical may cause severe internal injury.
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Skin contact	Causes severe burns. May cause serious chemical burns to the skin. May be absorbed through the skin.
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Eye contact	Causes severe burns. May cause chemical eye burns. Contact with concentrated chemical may very rapidly cause severe eye damage, possibly loss of sight.
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Toxicological information on ingredients.

SODIUM XYLENE SULPHONATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 7,200.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

2-BUTOXYETHANOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,414.0

Species Guinea pig

ATE oral (mg/kg) 1,414.0

Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Xanthan gum

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

SODIUM DODECYL BENZENE SULPHONATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,080.0

Species Rat

ATE oral (mg/kg) 1,080.0

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,780.0

Species Rat

ATE oral (mg/kg) 1,780.0

Acute toxicity - inhalation

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Acute toxicity inhalation
(LC₅₀ gases ppmV)

4,500.0

Species

Rat

Acute toxicity inhalation
(LC₅₀ vapours mg/l)

11.0

Species

Rat

Acute toxicity inhalation
(LC₅₀ dust/mist mg/l)

1.5

Species

Rat

ATE inhalation
(dusts/mists mg/l)

1.5

TRISODIUM NITRILOTRIACETATE**Acute toxicity - oral**

Acute toxicity oral (LD₅₀
mg/kg)

1,000.0

Species

Rat

ATE oral (mg/kg)

500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg)

10,000.0

Species

Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation
(LC₅₀ vapours mg/l)

5.0

Species

Rat

ATE inhalation (vapours
mg/l)

5.0

SECTION 12: Ecological Information**Ecotoxicity**

Not regarded as dangerous for the environment.

12.1. Toxicity**Toxicity**

Not considered toxic to fish.

Ecological information on ingredients.**SODIUM XYLENE SULPHONATE**

Acute toxicity - fish

LC₅₀, : 1000 mg/l, Freshwater fish

Acute toxicity - aquatic
invertebrates

EC₅₀, : 1000 mg/l, Daphnia magna

Acute toxicity - aquatic
plants

IC₅₀, : 230 mg/l, Freshwater algae

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2-BUTOXYETHANOL

Acute toxicity - fish LC50, 96 hours: 1490 mg/l, *Lepomis macrochirus* (Bluegill)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 1001 mg/l, *Daphnia magna*

Xanthan gum

Acute toxicity - fish LC50, 96 hours: 490 mg/l, *Onchorhynchus mykiss* (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 980 mg/l, *Daphnia magna*

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE

Acute toxicity - fish LC50, 96 hours: > 100 mg/l, *Lepomis macrochirus* (Bluegill)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: > 100 mg/l, *Daphnia magna*

Acute toxicity - aquatic plants EC₅₀, 72 hours: > 100 mg/l,

TRISODIUM NITRILOTRIACETATE

Acute toxicity - fish LC50, 96 hours: > 100 mg/l, *Pimephales promelas* (Fat-head Minnow)

12.2. Persistence and degradability

Persistence and degradability The surfactant(s) contained in this product complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request, or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

2-BUTOXYETHANOL

Bioaccumulative potential : 2.5,

12.4. Mobility in soil

Mobility The product is soluble in water.

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.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

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14.1. UN number

UN No. (ADR/RID)	1719
UN No. (IMDG)	1719
UN No. (ICAO)	1719
UN No. (ADN)	1719

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	Caustic Alkali Liquid, mixture, n.o.s. (contains Sodium Hydroxide)
Proper shipping name (IMDG)	Caustic Alkali Liquid, mixture, n.o.s. (contains Sodium Hydroxide)
Proper shipping name (ICAO)	Caustic Alkali Liquid, mixture, n.o.s. (contains Sodium Hydroxide)
Proper shipping name (ADN)	Caustic Alkali Liquid, mixture, n.o.s. (contains Sodium Hydroxide)

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C5
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2R
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

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

SECTION 15: Regulatory information

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

National regulations	Control of Substances Hazardous to Health Regulations 2002 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
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).
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

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. GHS: Globally Harmonized System. IATA: International Air Transport Association. ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air. IMDG: International Maritime Dangerous Goods. 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. SVHC: Substances of Very High Concern. vPvB: Very Persistent and Very Bioaccumulative. EC₅₀: 50% of maximal Effective Concentration. UN: United Nations.
General information	For further information or advice contact our technical service line during regular office hours on 0121-524-1000. This safety data sheet has been compiled for the product as supplied, properties and hazards will vary if the product is diluted with water or mixed with any other material.
Revision date	25/11/2016
Revision	12
Supersedes date	13/08/2012

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SDS status	Approved.
Signature	Health and Safety Manager
Hazard statements in full	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation.

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.