

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 09-Mar-2021

Revision date 06-Aug-2025

Revision Number 3

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

1.1. Product identifier

Product Code(s) 11522
Safety data sheet number 11522
Product Name CATALYST 1786B

Pure substance/mixture Mixture

Contains (2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE; n-BUTANOL

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

Recommended use Catalyst

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flammable liquids	Category 3 - (H226)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity — single exposure	Category 3 - (H335, H336)
Category 3 Narcotic effects, Respiratory irritation	

2.2. Label elements

Contains (2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE; n-BUTANOL

**Signal word**

Danger

Hazard statements

H315 - Causes skin irritation

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H226 - Flammable liquid and vapour

Precautionary statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
n-BUTANOL 71-36-3	25 - < 50%	200-751-6 (603-004-00-6)	-	Flam. Liq. 3 (H226) Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) STOT SE 3 (H335) STOT SE 3 (H336)	-	-	-
(2-HYDROXY-1,1-DIMETHYLETHYL)A	25 - < 50%	269-537-8	-	Acute Tox. 4 (H302) Eye Dam. 1 (H318)	-	-	-

MMONIUM TOLUENE-4-SULP HONATE 68298-05-5							
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Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures**4.1. Description of first aid measures**

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur. If breathing is irregular or stopped, administer artificial respiration.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists. Take off contaminated clothing and wash it before reuse.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor. Place unconscious person on the side in the recovery position and ensure breathing can take place. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.

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

Symptoms	Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. May cause drowsiness or dizziness.
Inhalation	Repeated and/or prolonged exposure to low concentrations of vapours and/or aerosols may cause sore throat, irritant effects. May cause respiratory irritation. May cause drowsiness or dizziness.
Eyes	Causes serious eye damage.
Dermal	Causes skin irritation.
Ingestion	May be harmful if swallowed

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

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Alcohol resistant foam. Carbon dioxide (CO₂). Dry chemical. Dry sand. Limestone powder. Water spray or fog.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Thermal decomposition may release: Carbon monoxide. Carbon dioxide. Aldehydes. May form explosive mixtures with air. Sealed containers may rupture when heated. Evacuate area. Burning produces harmful and toxic fumes.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Wear a self-contained breathing apparatus and chemical protective clothing. Wear protective gloves/clothing and eye/face protection. Use non sparking handtools and explosion-proof electric equipment. Ventilate area of leak or spill. Prevent entry into waterways, sewers, basements or confined areas. Prevent further leakage or spillage if safe to do so.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Eliminate all ignition sources if safe to do so. Dyke far ahead of liquid spill for later disposal.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Call emergency response number for advice.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Dispose of in accordance with local regulations.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Avoid breathing vapours or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Ensure that eyewash stations and safety showers are close to the workstation location. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with local regulations. Store locked up. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Ground all metal containers during storage and handling. Avoid contact with: reactive metals (i.e. sodium, calcium, zinc etc.). reactive chemicals. Oxidising agents.

7.3. Specific end use(s)

Specific use(s)

See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	United Kingdom
n-BUTANOL	STEL: 50 ppm

71-36-3	STEL: 154 mg/m ³ Sk*
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Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
n-BUTANOL 71-36-3			310 mg/m ³ [5] [6]
(2-HYDROXY-1,1-DIMETHYLETHYL) AMMONIUM TOLUENE-4-SULPHONATE 68298-05-5		4 mg/kg [4] [7] 1 mg/kg [4] [6]	14 mg/m ³ [4] [7] 3.5 mg/m ³ [4] [6]

[5] Local health effects.
[6] Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
n-BUTANOL 71-36-3	1.562 mg/kg [4] [6]	3.125 mg/kg [4] [6]	55.357 mg/m ³ [4] [6] 155 mg/m ³ [5] [6]
(2-HYDROXY-1,1-DIMETHYLETHYL) AMMONIUM TOLUENE-4-SULPHONATE 68298-05-5	0.5 mg/kg [4] [6]		

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
n-BUTANOL 71-36-3	0.082 mg/L	2.25 mg/L	0.0082 mg/L		
(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE 68298-05-5	0.07 mg/L		0.007 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
n-BUTANOL 71-36-3	0.324 mg/kg	0.0324 mg/kg	2476 mg/L	0.017 mg/kg	
(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE	0.276 mg/kg	0.0276 mg/kg	141.4 mg/L	0.015 mg/kg	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
TE 68298-05-5					

8.2. Exposure controls**Engineering controls**

Use non sparking handtools and explosion-proof electric equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection

Wear suitable gloves. Impervious gloves. Neoprene gloves. Gloves must conform to standard EN 374.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Ensure that eyewash stations and safety showers are close to the workstation location. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained. Ensure all waste water is collected and treated via a waste water treatment plant.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	Liquid
Appearance	Liquid
Colour	Light (or pale) yellow
Odour	Alcoholic.
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point		No information available.
Initial boiling point and boiling range > 100 °C		No information available.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	36 °C	No information available.
Autoignition temperature		No information available.

Decomposition temperature		No information available.
pH	7	No information available.
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity	30 mPa s	@ 25 °C.
Water solubility	partially soluble	No information available.
Solubility(ies)		No information available.
Partition coefficient		No information available.
Vapour pressure	< 13.75 hPa	@ 21 °C.
Relative density	0.97	No information available.
Bulk density		No information available
Liquid Density	0.97 g/mL	@ 21 °C
Relative vapour density		No information available.
Particle characteristics		No information available.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	Not considered to be explosive.	
Oxidising properties	Does not meet the criteria for classification as oxidising	

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks.

10.5. Incompatible materials

Incompatible materials reactive metals (i.e. sodium, calcium, zinc etc.). reactive chemicals. Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO₂). Aldehydes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause drowsiness or dizziness. May cause respiratory irritation.
Eye contact	Causes serious eye damage. May cause irreversible damage to eyes. On basis of test data.
Skin contact	Causes skin irritation. On basis of test data.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. May cause drowsiness or dizziness.
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Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
n-BUTANOL	2292 mg/kg (Rat)	3430 mg/kg (Rabbit)	-
(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE	> 1000 mg/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes skin irritation. On basis of test data.
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Method	Species	Exposure route	Effective dose	Exposure time	Results
		Dermal in vitro			Causes skin irritation

n-BUTANOL (71-36-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
Draize Test	Rabbit	Dermal			Causes skin irritation

(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
		Dermal			Not classified

Serious eye damage/eye irritation	Causes serious eye damage. On basis of test data.
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Method	Species	Exposure route	Effective dose	Exposure time	Results
		eye in vitro			Causes serious eye damage

n-BUTANOL (71-36-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD 405	Rabbit	eye			Causes serious eye damage

(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
Bovine Corneal Opacity	Bovine cornea in	eye in vitro			Causes serious eye

and Permeability Assay	vitro				damage
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Respiratory or skin sensitisation No information available.

n-BUTANOL (71-36-3)

Method	Species	Exposure route	Results
OECD 429 Local lymph node assay (LLNA)	Mouse	Dermal	Not classified

(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Species	Exposure route	Results
Local lymph node assay (LLNA)	Guinea pig	Dermal	Not classified
		Inhalation	Not classified

Germ cell mutagenicity No information available.

Component Information

n-BUTANOL (71-36-3)

Method	Species	Results
	in vitro	Negative
		Did not show mutagenic effects in animal experiments

(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Species	Results
Ames Test	in vitro	Negative

Carcinogenicity No information available.

Component Information

(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Species	Results
		Not classified

Reproductive toxicity No information available.

n-BUTANOL (71-36-3)

Method	Species	Results
		Not classified

(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Species	Results
		Not classified

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

n-BUTANOL (71-36-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause respiratory irritation
					May cause

					drowsiness or dizziness
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(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Not classified

STOT - repeated exposure No information available.

Component Information

(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Not classified

Aspiration hazard No information available.

Other adverse effects No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Ecotoxicity The environmental impact of this product has not been fully investigated.

n-BUTANOL (71-36-3)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test or Equivalent.	Algae	EC50	225 mg/L	96 hours	Not classified
OECD Test No. 203: Fish, Acute Toxicity Test or Equivalent.	Fish	LC50	1376 mg/L	96 hours	Not classified
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test or Equivalent.	Crustacea	EC50	1328 mg/L	48 hours	Not classified
OECD Test No. 211: Daphnia magna Reproduction Test	Crustacea	NOEC	4.1 mg/L	21 days	Not classified

(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Algae	ErC50	70 mg/L	72 hours	Harmful to aquatic life
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Crustacea	EC50	> 100 mg/L	48 hours	Not classified

12.2. Persistence and degradability

Persistence and degradability No information available.

n-BUTANOL (71-36-3)

Method	Exposure time	Value	Results
OECD Test No. 301E: Ready Biodegradability: Modified OECD Screening Test (TG 301 E) or Equivalent.	19 days	98% Biodegradation	Rapidly biodegradable
	20 days	92% Biodegradation	Rapidly biodegradable
	15 days	92% Biodegradation	Rapidly biodegradable

(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE (68298-05-5)

Method	Exposure time	Value	Results
	28 days	73% Biodegradation	Rapidly biodegradable

12.3. Bioaccumulative potential**Bioaccumulation** No information available.**Component Information**

Chemical name	Partition coefficient
n-BUTANOL	0.88

12.4. Mobility in soil**Mobility in soil** No information available.**12.5. Results of PBT and vPvB assessment****PBT and vPvB assessment** No information available.

Chemical name	PBT and vPvB assessment
n-BUTANOL	The substance is not PBT / vPvB
(2-HYDROXY-1,1-DIMETHYLETHYL)AMMONIUM TOLUENE-4-SULPHONATE	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	UN1120
14.2 UN proper shipping name	BUTANOLS
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	Not applicable

14.6 Special precautions for user

Special Provisions A3
ERG Code 3L

IMDG

14.1 UN number or ID number UN1120
14.2 UN proper shipping name BUTANOLS
14.3 Transport hazard class(es) 3
14.4 Packing group III
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions 223
EmS-No F-E, S-D
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number UN1120
14.2 UN proper shipping name BUTANOLS
14.3 Transport hazard class(es) 3
14.4 Packing group III
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None
Classification code F1

ADR

14.1 UN number or ID number UN1120
14.2 UN proper shipping name BUTANOLS
14.3 Transport hazard class(es) 3
14.4 Packing group III
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None
Classification code F1
Tunnel restriction code (D/E)

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Product restricted per REACH Annex XVII: 3

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
n-BUTANOL - 71-36-3	3, 40, 75.	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Dangerous substance category per COMAH Regulations 2015 (as amended)

P5c - FLAMMABLE LIQUIDS

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA	- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL	- Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	- Japan Existing and New Chemical Substances
IECSC	- China Inventory of Existing Chemical Substances
KECL	- Korean Existing and Evaluated Chemical Substances
PICCS	- Philippines Inventory of Chemicals and Chemical Substances
AIIC	- Australian Inventory of Industrial Chemicals
NZIoC	- New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet**Full text of H-Statements referred to under section 3**

H226 - Flammable liquid and vapour
H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note SDS sections updated 1 2 3 4 5 6 7 8 9 10 11 12 13 15 16

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	On basis of test data
Serious eye damage/eye irritation	On basis of test data
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 Environmental Protection Agency
 Acute Exposure Guideline Level(s) (AEGl(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 U.S. National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
 Organisation for Economic Co-operation and Development Screening Information Data Set
 World Health Organization

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This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
 Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer

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End of Safety Data Sheet