

N-PROPANOL EP

Version: 1.00

Revision Date 22.06.2018

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**

Trade name	n-Propanol EP
REACH No.	01-2119486761-29-0002
Substance name (REACH / CLP)	Propan-1-ol

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

Use	Industrial use
Uses advised against	raw material for pharmaceutical products

1.3 Details of the supplier of the safety data sheet

Company	Sasol Chemie GmbH & Co. KG Anckelmannsplatz 1 20537 Hamburg Germany
	Telephone: +49 40 63684-1000 Telefax: +49 40 63684-3700
Information (Product safety):	Telephone: + 49 (0) 23 65 - 49 47 05 Telefax: + 49 (0) 23 65 - 49 92 40
E-mail address	solvents.germany.msds@de.sasol.com

1.4 Emergency telephone number

Emergency telephone number	+44 (0)1235 239 670 (Europe, Israel, Africa, Americas) +44 (0)1235 239 671 (Middle East, Arabic African countries) +65 3158 1074 (Asia Pacific) +86 10 5100 3039 (China) +27 (0)17 610 4444 (South Africa) +61 (2)8014 4558 (Australia)
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SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Flammable liquids Category 2	Highly flammable liquid and vapour.
Serious eye damage Category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure Category 3 (Central nervous system)	May cause drowsiness or dizziness.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

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Hazard pictograms



Signal word

Danger

Hazard statements

H225

Highly flammable liquid and vapour.

H318

Causes serious eye damage.

H336

May cause drowsiness or dizziness.

Precautionary statements

P243

Take precautionary measures against static discharge.

P303 + P361 + P353

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

P312

Call a POISON CENTER/doctor if you feel unwell.

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

Vapours may form explosive mixture with air.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a substance in the meaning of regulation (EC) 1907/2006.

COMPONENTS TO BE NAMED IN ACCORDANCE WITH REGULATION (EC) 1907/2006 AS WELL AS OTHER HAZARDOUS INGREDIENTS AND CONTAINED SUBSTANCES WITH WORK PLACE LIMIT VALUES

propan-1-ol; n-propanol

content: <= 100 %

component type: Active ingredient

EC-No.: 200-746-9

Index-No.: 603-003-00-0

CAS-No.: 71-23-8

REACH No.: 01-2119486761-29-0002

**Classification (Regulation
(EC) No 1272/2008):**

 Flam. Liq. 2
 Eye Dam. 1
 STOT SE 3

 H225
 H318
 H336

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

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General advice	Take off contaminated clothing and shoes immediately.
If inhaled	Move to fresh air.
In case of skin contact	Wash off with plenty of water.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Drink plenty of water. Do NOT induce vomiting. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed	Risks: No information available.
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4.3 Indication of any immediate medical attention and special treatment needed

Indication of any immediate medical attention and special treatment needed	Treatment: For specialist advice physicians should contact the Poisons Information Service.
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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media	Water spray jet, Alcohol-resistant foam, Dry powder, Carbon dioxide (CO ₂) in enclosed spaces
Unsuitable extinguishing media	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	When fighting fires in enclosed spaces: caution, danger of suffocation! Vapours may form explosive mixtures with air.
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5.3 Advice for firefighters

Special protective equipment for firefighters	Wear self-contained breathing apparatus and protective suit.
Further information	Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Keep away from sources of ignition - No smoking.
Special precautions	Remove all sources of ignition.

6.2 Environmental precautions

Environmental precautions	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.
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6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
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6.4 Reference to other sections

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For personal protection see section 8.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	Ensure adequate ventilation. Vapours are heavier than air and may spread along floors.
Advice on protection against fire and explosion	Keep away from sources of ignition - No smoking. Vapours may form explosive mixtures with air. Do not allow to enter drains (danger of explosion). Take precautionary measures against static discharges.
Temperature class	T2
Fire-fighting class	B: Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	Keep container tightly closed. Store between 5 and 25 °C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.
Advice on common storage	Keep away from oxidizing agents, strongly acid or alkaline materials and amines.
Storage class (TRGS 510)	3: Flammable Liquids
Storage temperature	5 - 25 °C
container material	suitable materials: Stainless steel unsuitable materials: Aluminium

7.3 Specific end use(s)

Specific use(s)	Consult the technical guidelines for the use of this substance/mixture.
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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

National occupational exposure limits

Control parameters / Substance name	Typ	Control parameters	Update	Basis
N-PROPANOL	TWA TWA	500 mg/m ³ 200 ppm	2007 2007	Ireland Exposure Limit Values List
N-PROPANOL	STEL STEL	625 mg/m ³ 250 ppm	2007 2007	Ireland Exposure Limit Values List
Can be absorbed through the skin.				

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

No data available

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DERIVED NO EFFECT LEVEL (DNEL)

Substance name: propan-1-ol; n-propanol			
End Use	Exposure routes	Value	Note
Workers	dermal, Acute/short-term exposure - systemic effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - systemic effects	1723 mg/m ³	
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	136 mg/kg Body weight/day	
	Inhalation, long-term exposure - systemic effects	268 mg/m ³	
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable
	Consumers	dermal, Acute/short-term exposure - systemic effects	
Inhalation, Acute/short-term exposure - systemic effects		1036 mg/m ³	
Oral, Acute/short-term exposure - systemic effects			Not relevant / not applicable
dermal, Acute/short-term exposure - local effects			Not relevant / not applicable
Inhalation, Acute/short-term exposure - local effects			Not relevant / not applicable
dermal, long-term exposure - systemic effects		81 mg/kg Body weight/day	
Inhalation, long-term exposure - systemic effects		80 mg/m ³	
Oral, long-term exposure - systemic effects		61 mg/kg Body weight/day	
dermal, long-term exposure - local effects			Not relevant / not applicable
Inhalation, long-term exposure - local effects			Not relevant / not applicable

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PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance name: propan-1-ol; n-propanol		
Environmental Compartment	Value	Note
Fresh water	10 mg/l	
Marine water	1 mg/l	
intermittent release	10 mg/l	
treatment plant	96 mg/l	
Fresh water sediment	22,8 mg/kg	based on dry weight
Marine sediment	2,28 mg/kg	based on dry weight
Soil	2,2 mg/kg	based on dry weight
food		Not relevant / not applicable

8.2 Exposure controls

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection

No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.

Hand protection

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).

gloves suitable for permanent contact:

Material: butyl-rubber
Break through time: >= 480 min
Layer thickness: 0,5 mm

Material: Nitrile rubber/nitrile latex
Break through time: >= 480 min
Layer thickness: 0,35 mm

gloves suitable for splash protection:

Material: Polychloroprene
Break through time: >= 120 min
Layer thickness: 0,5 mm

unsuitable gloves

Material: Natural rubber/natural latex, Polyvinylchloride

Eye protection

Tightly fitting safety goggles

Skin and body protection

Wear suitable protective equipment.

Hygiene measures

Take off all contaminated clothing immediately.

Protective measures

Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist.

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ENVIRONMENTAL EXPOSURE CONTROLS

General advice Do not flush into surface water or sanitary sewer system.
Do not allow material to contaminate ground water system.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state	liquid; 20 °C; 1.013 hPa
Form	liquid
Colour	colourless
Odour	alcohol-like
Odour Threshold	No valid method available
pH	No data available
Melting point/range	-127,5 °C; 1.013 hPa
Boiling point/boiling range	97 °C; 1.013 hPa
Flash point	24 °C; 1.013 hPa; closed cup
Evaporation rate	No data available
Flammability (solid, gas)	not applicable (liquid)
Lower explosion limit	2,1 %(V)
Upper explosion limit	13,5 %(V)
Vapour pressure	19,9 hPa; 20 °C 28,2 hPa; 25 °C
Relative vapour density	2,1
Relative vapour density	1,02; 20 °C
Density	0,8037 g/cm ³ ; 20 °C
Solubility/qualitative	miscible with most organic solvents
Water solubility	completely miscible 1.000 g/l; 25 °C
Partition coefficient: n-octanol/water	log Pow: 0,2; 25 °C
Ignition temperature	371 °C; 1.013 hPa
Auto-ignition temperature	400 °C; 1.013 hPa
Viscosity, dynamic	2,3 mPas; 20 °C
Explosive properties	Not explosive
Oxidizing properties	not expected based on structure and functional groups

9.2 Other data

Additional advice no data

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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Note Reacts with the following substances:
Strong acids and oxidizing agents

10.2 Chemical stability

Note Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid Heat, flames and sparks.
Avoid temperatures above 35°C, direct sunlight and contact with sources of heat.

10.5 Incompatible materials to avoid

Materials to avoid Strong acids and oxidizing agents; Alkali metals; Aluminium; Iron; Amines

10.6 Hazardous decomposition products

Hazardous decomposition products None known.

Thermal decomposition No decomposition if used as directed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects**Acute toxicity**

Acute oral toxicity propan-1-ol; n-propanol:
LD50 Rat: > 5.000 mg/kg; OECD Test Guideline 401
(literature value)
Based on available data, the classification criteria are not met.

Acute inhalation toxicity propan-1-ol; n-propanol:
LC50 Rat: > 20 mg/l; 4 h; OECD Test Guideline 403
(literature value)
Based on available data, the classification criteria are not met.

Acute dermal toxicity propan-1-ol; n-propanol:
LD50 Rabbit: > 2.000 - 5.000 mg/kg; OECD Test Guideline 402
(literature value)
Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Skin irritation propan-1-ol; n-propanol:
Rabbit: not irritating; OECD Test Guideline 404
(literature value)
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

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Eye irritation	propan-1-ol; n-propanol: Rabbit: Risk of serious damage to eyes.; OECD Test Guideline 405 (literature value) Causes serious eye damage.
Respiratory or skin sensitisation	
Sensitisation	propan-1-ol; n-propanol: Maximisation Test Guinea pig: not sensitizing; OECD Test Guideline 406 (literature value) Based on available data, the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity in vitro	propan-1-ol; n-propanol: In vitro tests showed mutagenic effects (literature value)
Remarks	propan-1-ol; n-propanol: Based on available data, the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	propan-1-ol; n-propanol: The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential.
Reproductive toxicity	
Reproductive toxicity	propan-1-ol; n-propanol: Rat; OECD Test Guideline 413 Based on available data, the classification criteria are not met.
Teratogenicity	propan-1-ol; n-propanol: Rat; inhalation (vapour); OECD Test Guideline 414 Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses (literature value)
Remarks-Teratogenicity	propan-1-ol; n-propanol: Based on available data, the classification criteria are not met.
STOT - single exposure	
Remarks	propan-1-ol; n-propanol: Inhalation May cause drowsiness or dizziness. (literature value)
STOT - repeated exposure	
Remarks	propan-1-ol; n-propanol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Repeated dose toxicity	propan-1-ol; n-propanol: Rat; inhalation (vapour); Subacute toxicity; NOAEC: 1000 ppm; OECD Test Guideline 412 (literature value) propan-1-ol; n-propanol: Rat; inhalation (vapour); Subchronic toxicity; OECD Test Guideline 413 (literature value)
Aspiration hazard	
Aspiration toxicity	propan-1-ol; n-propanol: Not applicable

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Toxicological information	<p>propan-1-ol; n-propanol: Toxicokinetics The substance is readily absorbed through skin, intestinal tract and lungs. The substance is uniformly distributed throughout the organism. The substance is rapidly eliminated from the body.</p>
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SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	<p>propan-1-ol; n-propanol: LC50 (96 h) Pimephales promelas (fathead minnow): > 100 mg/l ; semi-static test; OECD Test Guideline 203 (literature value)</p>
Toxicity to fish - Chronic toxicity	<p>propan-1-ol; n-propanol: The study is not necessary.</p>
Toxicity to daphnia and other aquatic invertebrates	<p>propan-1-ol; n-propanol: EC50 (48 h) Daphnia magna (Water flea): > 100 mg/l ; static test; DIN 38412 (literature value)</p>
Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity	<p>propan-1-ol; n-propanol: NOEC (21 d) Daphnia magna (Water flea): > 100 mg/l; reproduction rate; semi-static test; OECD Test Guideline 211; (literature value) Test substance: Isopropanol</p>
Toxicity to aquatic plants	<p>propan-1-ol; n-propanol: EC50 (48 h) Pseudokirchneriella subcapitata (microalgae): > 100 mg/l ; Growth rate; static test; (literature value)</p>
Toxicity to bacteria	<p>propan-1-ol; n-propanol: IC50 (3 h) activated sludge, domestic: > 1.000 mg/l; static test (literature value)</p>
Toxicity to soil dwelling organisms	<p>propan-1-ol; n-propanol: The study is not necessary. Justification: Bioaccumulation is unlikely. Readily biodegradable. Not expected to adsorb on soil.</p>
Toxicity to terrestrial flora	<p>propan-1-ol; n-propanol: Growth inhibition; EC50 (7 d): > 500 mg/kg; Triticum aestivm (wheat) (literature value)</p>
Toxicity for other terrestrial non-mammalian fauna	<p>propan-1-ol; n-propanol: The study is not necessary. Justification: low bioaccumulation potential Unlikely to pose a hazard to birds.</p>

12.2 Persistence and degradability

Biodegradability	<p>propan-1-ol; n-propanol: Readily biodegradable.; aerobic; OECD Test Guideline 301D (literature value)</p>
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12.3 Bioaccumulative potential

Bioaccumulation	<p>propan-1-ol; n-propanol: Bioconcentration factor (BCF): 0,88; calculated Bioaccumulation is unlikely.</p>
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12.4 Mobility in soil

Mobility propan-1-ol; n-propanol:
Adsorption/Soil; Koc: 4,291; log Koc: 0,633; calculated
Highly mobile in soils
Not expected to adsorb on soil.

12.5 Results of PBT and vPvB assessment

Results of PBT assessment propan-1-ol; n-propanol:
Based on available data, the classification criteria are not met.

12.6 Other adverse effects

General advice propan-1-ol; n-propanol:
None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Following pre-treatment and observing the regulations for hazardous wastes, it must be taken to a permitted hazardous wastes landfill or hazardous wastes incinerator.

Contaminated packaging Can be used after re-conditioning.

waste code of the European Union: EWC A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR	1274
RID	1274
ADN	1274
IMDG	1274
ICAO/IATA	1274

14.2 Proper shipping name

ADR	N-PROPANOL
RID	N-PROPANOL
ADN	N-PROPANOL
IMDG	N-PROPANOL
ICAO/IATA	N-PROPANOL

14.3 Transport hazard class

ADR	3
RID	3
ADN	3
IMDG	3

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ICAO/IATA	3
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14.4 Packing group

ADR	III
RID	III
ADN	III
IMDG	III
ICAO/IATA	III

14.5 Environmental hazards

ADR	Environmentally hazardous	no
RID	Environmentally hazardous	no
ADN	Environmentally hazardous	no
IMDG	Marine pollutant	no
ICAO/IATA	Environmentally hazardous	no

14.6 Special precautions for user

ADR	Hazard Identification Number	30
	Labels	3
	Tunnel restriction code	(D/E)
IMDG	Labels	3
	EmS Number 1	F-E
	EmS Number 2	S-D
ICAO/IATA	Labels	3

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks	No information available.
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SECTION 15: REGULATORY INFORMATION

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

Occupational restrictions	Employment restrictions for children and young workers in accordance with Directive 94/33/EC and the respective national provisions are to be observed.
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NATIONAL/OTHER REGULATIONS

Legislation on the control of major-accident hazards involving dangerous substances	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. list entry in the directive:: FLAMMABLE LIQUIDS; P5c Qualifying quantity 1: 5.000 t; Qualifying quantity 2: 50.000 t;
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NOTIFICATION STATUS

Switzerland. Consolidated Inventory	CH INV	listed (product or constituents are listed)
US. Toxic Substances Control Act	TSCA	listed (product or constituents are listed)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	listed (product or constituents are listed)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	listed (product or constituents are listed)
Japan. Kashin-Hou Law List	ENCS (JP)	listed (product or constituents are listed)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	listed (product or constituents are listed)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	listed (product or constituents are listed)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	listed (product or constituents are listed)
China. Inventory of Existing Chemical Substances	INV (CN)	listed (product or constituents are listed)

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

15.2 Chemical safety assessment

propan-1-ol; n-propanol

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.

Further information:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.
This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Key or legend to abbreviations and acronyms used in the safety data sheet

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ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
BCF	Bioconcentration factor
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
DSL	Domestic Substances List
EC...	Effect concentration ... %
ENCS	Existing Notified Chemical Substances (Japan)
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISHL	Industrial Safety and Health Law (Japan)
ISO	International Organization for Standardization
IUAPC	International Union of Pure and Applied Chemistry
KECI	Korea Existing Chemicals Inventory
LC...	Lethal Concentration, ...%
LD...	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NDSL	Non-Domestic Substances List
NOAEL	no observable adverse effect level
NOEL/NOEC	No Observed-effect level/concentration
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development
PBT	persistent, bioaccumulative, toxic
PICCS	Philippine Inventory of Chemicals and Chemical Substances
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport international ferroviaire de marchandises dangereuses
TG	Test Guideline
TRGS	Technische Regeln für Gefahrstoffe
TSCA	Toxic Substances Control Act
vPvB	very persistent, very bioaccumulative
WGK	Wassergefährdungsklasse

Annex

Attachments to the safety data sheet and/or lists of the identified uses for the listed substances can be downloaded using the internet links below.

http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/00000016941_EN_01.pdf
