Safety Data Sheet

Propanol Bottoms

Version 1.00 Revision Date 09.03.2021

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

Product identifier

Trade name	Propanol Bottoms
Synonyms	Prop B
Product code	2042

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

Use	Industrial use. Solvent.
Uses advised against	Prohibited for use in production of hand sanitizer.

Manufacturer or supplier's details

Company	Sasol Chemicals, a division of Sasol South Africa Ltd
Address	Sasol Place, 50 Katherine Street Sandton 2090 South Africa
Telephone	+27103445000
E-mail address	sasolchem.info.sa@sasol.com
Emergency telephone	+44 (0)1235 239 670 (Europe, Israel, Africa, Americas) +44(0)1235 239 671 (Middle East, Arabic African countries) +65 3158 1074 (Asia Pacific) +86 400 120 6011 (China) +27 (0)17 610 4444 (South Africa) +61 (2) 8014 4558 (Australia)

SECTION 2. Hazards identification

Classification of the substance or mixture

	Globally Harmonized System of Classification and Labeling of Chemicals (GHS)	
Classification	Flammable liquids	Category 3
	Skin irritation	Category 2

Serious eye damage	Category 1
Specific target organ toxicity - single exposure (Central nervous system)	Category 3
Specific target organ toxicity - single exposure (Respiratory system)	Category 3

Label elements

Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Hazard pictograms :

Signal Word : Danger

Hazard Statements :

H226	Flammable liquid and vapor.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

Precautionary Statements

Prevention	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response	P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. P312 Call a POISON CENTER or doctor/ physician if you feel unwell. P331 Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P370 + P378 In case of fire: Use carbon dioxide to extinguish. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Storage	P403 + P233 + P235 Store in a well-ventilated place. Keep container tightly closed. Keep cool. P405 Store locked up.
Disposal	P501 Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3. Composition/information on ingredients

Mixture

Propan-1-ol

Contents: <= 60.00 %W/W

CAS-No. 71-23-8 **Index-No.** 603-003-00-0 **EC-No.** 200-746-9

Hazard Statements *H225 H318 H336*

Iso-butanol

Contents: <= 40.00 %W/W

CAS-No. 78-83-1 **Index-No.** 603-108-00-1 **EC-No.** 201-148-0

Hazard Statements *H226 H315 H318 H335 H336*

n-Butanol

Contents: < 5.00 %W/W

CAS-No. 71-36-3 **Index-No.** 603-004-00-6 **EC-No.** 200-751-6

Hazard Statements *H226 H302 H335 H315 H318 H336*

Butan-2-ol

Contents: <= 30.00 %W/W

CAS-No. 78-92-2 **Index-No.** 603-004-01-3 **EC-No.** 201-158-5

Hazard Statements *H319 H335 H336 H226*

SECTION 4. First aid measures

Description of necessary first-aid measures

Inhalation	Move to fresh air in case of accidental inhalation of vapors. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before re-use. If skin irritation persists, call a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion	If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician immediately.

Most important symptoms/effects, acute and delayed

Refer to SECTION 11

SECTION 5. Firefighting measures

Suitable extinguishing media	Water spray Alcohol-resistant foam Dry chemical Carbon dioxide.
Unsuitable extinguishing media	High volume water jet
Special hazards arising from the substance or mixture	Vapors may form explosive mixtures with air. Flash back possible over considerable distance.
Special protective equipment for firefighters	Wear self-contained breathing apparatus and protective suit.

SECTION 6. Accidental release measures

Personal precautions	Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapors or spray mist. Material can create slippery conditions.
Environmental precautions	Should not be released into the environment. Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Soak up with inert absorbent material and dispose of as hazardous waste.
Reference to other sections	Refer to section 8 and 13

SECTION 7. Handling and storage

Safe handling advice	Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Ensure all equipment is electrically grounded before beginning transfer operations. Take precautionary measures against static discharges.
Advice on protection against fire and explosion	Keep away from heat and sources of ignition.Use explosion-proof equipment.
Requirements for storage areas and containers	Keep containers tightly closed in a dry, cool and well-ventilated place.
Advice on common storage	Keep in a cool, well-ventilated place.

SECTION 8. Exposure controls/personal protection

Ingredients with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control parameters	Update	Basis

N-PROPANOL	TWA	500 mg/m3	1995	South Africa RELs
N-PROPANOL	TWA	200 ppm	1995	South Africa RELs
PROPAN-1-OL	STEL	625 mg/m3	1995	South Africa RELs
PROPAN-1-OL	STEL	250 ppm	1995	South Africa RELs
ISOBUTYL ALCOHOL	TWA	150 mg/m3	1995	South Africa RELs
ISOBUTYL ALCOHOL	TWA	50 ppm	1995	South Africa RELs
	STEL	225 mg/m3	1995	South Africa RELs
	STEL	75 ppm	1995	South Africa RELs
BUTAN-1-OL	STEL	150 mg/m3	1995	South Africa RELs
N-BUTYL ALCOHOL	STEL	50 ppm	1995	South Africa RELs
BUTAN-1-OL				
SEC-BUTYL ALCOHOL	TWA	300 mg/m3	1995	South Africa RELs
SEC-BUTYL ALCOHOL	TWA	100 ppm	1995	South Africa RELs
	STEL	450 mg/m3	1995	South Africa RELs
	STEL	150 ppm	1995	South Africa RELs

Exposure controls

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

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

PVC disposable gloves, 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: nitrile rubber/nitrile latex
Break through time: >= 480 min
Material thickness: 0.35 mm
Gloves suitable for permanent contact:
Material: butyl-rubber
Break through time: >= 480 min
Material thickness: 0.5 mm
gloves suitable for splash protection:
Material: natural rubber/natural latex
Break through time: >= 60 min
Material thickness: 0.5 mm

Eye protection	Tightly fitting safety goggles
Skin and body protection	Protective suit Safety shoes
Hygiene measures	Take off all contaminated clothing immediately. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Form	Liquid
State of matter	Liquid
Color	colorless
Odor	alcohol-like
Odor Threshold	No data available

pH	7; neutral
Melting point/range	-121.1 ° C
Boiling point/boiling range	99.3 ° C; start of boiling
Flash point	27 ° C; closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Autoignition temperature	342.9 ° C
Lower explosion limit	2.2 %(V)
Upper explosion limit	9.1 %(V)
Vapor pressure	14.66 hPa; 20 ° C
Relative vapor density	2.27
Density	0.802 g/cm3; 20 ° C
Water solubility	completely soluble
Partition coefficient: n-octanol/water	Pow: < 4
Viscosity, kinematic	3.29 mm2/s; 20 ° C

SECTION 10. Stability and reactivity

Reactivity	Stable under recommended storage conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks.
Materials to avoid	Strong oxidizing agents Incompatible with acids. Halogenated compounds
Hazardous decomposition products	Carbon oxides
Further information	Stable under recommended storage conditions.

SECTION 11. Toxicological information

Acute oral toxicity	Butan-2-ol: LD50 Oral Rat: male2,054 mg/kg; (literature value)
Acute oral toxicity	Propan-1-ol: LD50 Oral : > 2,000 mg/kg; (literature value)

Acute oral toxicity	n-Butanol: LD50 Mouse: 2,680 mg/kg; OECD Test Guideline 401; GLP: no (literature value)
Acute oral toxicity	Iso-butanol: LD50 Rat: female> 2,830 mg/kg; GLP: yes (literature value)
Acute inhalation toxicity	Butan-2-ol: LC50 Rat: male; 4 h; vapor; 16000 ppm; GLP: no; (literature value)
Acute inhalation toxicity	Propan-1-ol: LC50 Rat: male and female; 4 h; vapor; 13548 ppm; GLP: yes; (literature value)
Acute dermal toxicity	Butan-2-ol: LD50 Dermal Rat: male and female; > 2,000 mg/kg; (literature value)
Acute dermal toxicity	Propan-1-ol: LD50 Dermal Rabbit: male; 6,730 mg/kg; (literature value)
Acute dermal toxicity	n-Butanol: LD50 Rabbit: male; 3,430 mg/kg; GLP: no; (literature value)
Skin irritation	Propan-1-ol: Rabbit: Not irritating; Draize Test (literature value)
Skin irritation	n-Butanol: Rabbit: irritating; OECD Test Guideline 404 GLP: no; (literature value)
Skin irritation	Iso-butanol: Rabbit: Not irritating; (literature value)
Eye irritation	Propan-1-ol: Rabbit: Highly irritating 24 - 72 h; (literature value)
Eye irritation	n-Butanol: Rabbit: irritating GLP: no; (literature value)
Eye irritation	Iso-butanol: Rabbit: irritating (literature value)

SECTION 12. Ecological information

Toxicity to fish	Butan-2-ol: static test; Pimephales promelas; 96 h; LC50; 2,993 mg/l;

	(literature value)
Toxicity to fish	Propan-1-ol: static test; Pimephales promelas; 96 h; LC50; 4,650 mg/l; GLP: no; (literature value)
Toxicity to fish	n-Butanol: flow-through test; Pimephales promelas; 96 h; LC50; 1,730 mg/l; GLP: no; (literature value)
Toxicity to fish	Iso-butanol: flow-through test; Pimephales promelas; 96 h; LC50; 1,430 mg/l; (literature value)
Toxicity to daphnia and other aquatic invertebrates	Butan-2-ol: static test; Daphnia magna (Water flea); 24 h; EC50; 2,300 mg/lGLP: no; (literature value)
Toxicity to daphnia and other aquatic invertebrates	Propan-1-ol: static test; Daphnia magna (Water flea); 48 h; EC50; 3,644 mg/l(literature value)
Toxicity to daphnia and other aquatic invertebrates	Iso-butanol: static test; Daphnia pulex (Water flea); 48 h; EC50; 1,100 mg/l(literature value)
Toxicity to bacteria	n-Butanol: Pseudomonas putida; 17 h; EC50; 4,390 mg/l; Information taken from reference works and the literature.
Biodegradability	Butan-2-ol: aerobic; 86 %; 5 d; GLP: no; (literature value)
Biodegradability	Propan-1-ol: aerobic; 3 mg/l; 81 %; 20 d; Readily biodegradable.; (literature value)
Biodegradability	n-Butanol: aerobic; activated sludge of a predominantly domestic sewage; 3 mg/l; 92 %; 20 d; Readily biodegradable.; GLP: no; (literature value)
Biodegradability	Iso-butanol: aerobic; 100 mg/l; > 70 %; 14 d; Readily biodegradable.; OECD Guideline 301 A (new version); (literature value)

Mobility in soil	No data available
Results of PBT and vPvB assessment	This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. Disposal considerations

Product	In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.
Packaging	Explosion risk. Burn small quantities distributing it in a very thin layer on an open fire. Dispose of spent product packaging responsibly and lawfully with due consideration for health, safety and the environment.

SECTION 14. Transport information

DG Pictogram

ADR

UN number:	1987
Class:	3
Packaging group:	III; F1;
Proper shipping name:	ALCOHOLS, N.O.S. (n-propanol, butanols)

RID

UN number:	1987
Class:	3
Packaging group:	III; F1
Proper shipping name:	ALCOHOLS, N.O.S.

(n-propanol, butanols)

ADNR	
UN number:	1987
Class:	3
Packaging group:	III; F1
Proper shipping name:	ALCOHOLS, N.O.S. (n-propanol, butanols)
IMDG	
UN number:	1987
Class:	3
EmS:	F-E, S-D
Packaging group:	III
Proper shipping name:	ALCOHOLS, N.O.S. (n-propanol, butanols)
Marine pollutant	Not a Marine Pollutant
ICAO/IATA	
UN number :	1987
Class:	3
Packaging group:	III
Proper shipping name:	ALCOHOLS,N.O.S. (n-propanol, butanols)

SECTION 15. Regulatory information

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

USA TSCA Inventory	All chemical constituents are listed in: USA TSCA Inventory (See chapter 3)
Canadian Domestic Substances List (DSL)	All chemical constituents are listed in: Canadian Domestic Substances List (DSL) (See chapter 3)
Australian Inv. of Chem. Substances (AICS)	All chemical constituents are listed in: Australian Inv. of Chem. Substances (AICS) (See chapter 3)
New Zealand Inventory of Chemicals	All chemical constituents are listed in: New Zealand Inventory of

(NZIoC)	Chemicals (NZIoC) (See chapter 3)
Jap. Inv. of Exist. & New Chemicals (ENCS)	All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals (ENCS) (See chapter 3)
Japan. Industrial Safety & Health Law (ISHL)	All chemical constituents are listed in: Japan. Industrial Safety & Health Law (ISHL) (See chapter 3)
Korea. Existing Chemicals Inventory (KECI)	All chemical constituents are listed in: Korea. Existing Chemicals Inventory (KECI) (See chapter 3)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	All chemical constituents are listed in: Philippines Inventory of Chemicals and Chemical Substances (PICCS) (See chapter 3)
China Inv. Existing Chemical Substances (IECSC)	All chemical constituents are listed in: China Inv. Existing Chemical Substances (IECSC) (See chapter 3)

SECTION 16. Other information

Full text of H-Statements

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapor.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

All reasonable efforts were exercised to compile this SDS in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The SDS only provides information regarding the health, safety and environmental hazards at the date of issue, to facilitate the safe receipt, use and handling of this product in the workplace and does not replace any product information or product specifications. Since Sasol and its subsidiaries cannot anticipate or control all conditions under which this product may be handled, used and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this SDS in the context within which this product will be received, handled or used in the workplace. The user, handler

or receiver must ensure that the necessary mitigating measures are in place with respect to health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of this product.
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