

# n-Propanol

Version 1.07 Revision Date 15.11.2024

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

Product identifier

Trade name n-Propanol

Synonyms 1-Propanol, Hydroxypropane, 1-Propyl alcohol, Ethyl carbinol, n-

Propan-1-ol, n-Propyl alcohol, Propyl alcohol

Product code 2044

**CAS-No.** 71-23-8

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

Use Solvent Industrial use. Hand sanitizer manufacture.

Manufacturer or supplier's details

Company Sasol Chemicals, a division of Sasol South Africa (Pty) Ltd

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Sandton 2090

Republic of South Africa

Telephone +27103445000

E-mail address sasolchem.info.sa@sasol.com

**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) +86 532 8388 9090 (China) +27 (0)17 610 4444 (South Africa) 0800 112 890 RSA-Local only +61 (2) 8014 4558 (Australia)

#### **SECTION 2. Hazards identification**

#### Classification of the substance or mixture

REGULATION (EC) No 1272/2008

**Classification** Flammable liquids Category 3

Serious eye damage Category 1
Specific target organ toxicity - single exposure Category 3

(Central nervous system)

Label elements

REGULATION (EC) No 1272/2008

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Hazard pictograms :







Signal word : Danger

**Hazard statements** : H226 Flammable liquid and vapour.

H318 Causes serious eye damage.

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 and bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting equipment.

P242 Use non-sparking tools.

P243 Take action to prevent static discharges.

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

P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.

P271 Use only outdoors or in a well-ventilated area.

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

protection.

**Response** P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all

contaminated clothing. Rinse skin with water or shower.

P304 + P340 IF INHALED: Remove person to fresh air and keep

comfortable for breathing.

P305 + P354 + P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

P317 Get medical help.

P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry

chemical or carbon dioxide to extinguish.

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.

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# **SECTION 3. Composition/information on ingredients**

# HAZARDOUS INGREDIENTS

n-Propanol

**Contents:** 99.90 %W/W

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

Hazard statements H225 H318 H336



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#### **SECTION 4. First aid measures**

Description of necessary first-aid measures

Move to fresh air in case of accidental inhalation of vapours. If Inhalation

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.

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** Flash back possible over considerable distance. Vapours may form the substance or mixture

explosive mixtures with air.

for firefighters

**Special protective equipment** 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. Use non-sparking tools. Do not breathe vapours or spray

mist. Ensure adequate ventilation.

**Environmental precautions** Should not be released into the environment. Prevent further leakage

or spillage if safe to do so. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary

sewer system.

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



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personal protective equipment. Take precautionary measures against static discharges. Ensure all equipment is electrically grounded before

beginning transfer operations.

Advice on protection against

fire and explosion

Keep away from open flames, hot surfaces and sources of

ignition.Use explosion-proof equipment.

Temperature class T1

Requirements for storage areas and containers

Keep container tightly closed in a dry and well-ventilated place. Keep

away from heat.Keep away from direct sunlight.

**Advice on common storage** Keep containers tightly closed in a cool, well-ventilated place.

#### **SECTION 8. Exposure controls/personal protection**

#### Components with workplace control parameters

#### NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control	Update	Basis
		parameters		
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

#### **Exposure controls**

#### **Engineering measures**

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

#### Personal protective equipment

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory

equipment.

**Hand protection** Gloves suitable for permanent contact.:

Material: butyl-rubber Break through time: 4 h Material thickness: 0.5 mm Safety glasses with side-shields

Eye protectionSafety glasses with side-shielSkin and body protectionProtective suit. Safety shoes

**Hygiene measures** Wash hands before breaks and immediately after handling the

product. Take off all contaminated clothing immediately.

#### **SECTION 9. Physical and chemical properties**

#### Information on basic physical and chemical properties

Form Liquid

**State of matter** Liquid; at 20 °C; 1,013 hPa

ColourColourlessOdourAlcohol-likeOdour ThresholdNo data available



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**pH** Not applicable

**Melting point/range** -126 °C

**Boiling point/boiling range** 97 °C; ASTM D86

**Flash point** 25 °C; ASTM D 93; closed cup;

Evaporation rateNo data availableFlammability (solid, gas)No data availableAuto-ignition temperatureNo data availableDecomposition TemperatureNo data available

Lower explosion limit2.1 %(V)Upper explosion limit19.2 %(V)Vapour pressure20.3 hPa; 20 °CRelative vapour density2.07(Air = 1.0)

**Density** 0.802 g/cm3; 20 °C; ASTM D4052

Water solubility
Partition coefficient: n-

octanol/water

completely soluble No data available

Viscosity, kinematic 2.24 mm<sup>2</sup>/s; 20 °C; ASTM D 445

#### SECTION 10. Stability and reactivity

ReactivityStable under recommended storage conditions.Chemical stabilityStable under recommended storage conditions.Possibility of hazardousHazardous polymerisation does not occur.

reactions

Conditions to avoid Extremes of temperature and direct sunlight. Heat, flames and sparks.

Materials to avoid Strong oxidizing agents Incompatible with acids. Halogenated

compounds

**Hazardous decomposition** 

products

Carbon oxides

#### **SECTION 11. Toxicological information**

**Acute oral toxicity** n-Propanol:

LD50 : > 5,000 mg/kg; OECD Test Guideline 401; (literature value)

Based on available data, the classification criteria are not met.

**Acute inhalation toxicity** n-Propanol:

LC50 Rat: 4 h; > 20 mg/l; OECD Test Guideline 403; (literature

value), Based on available data, the classification criteria are not met.

**Acute dermal toxicity** n-Propanol:

LD50 Dermal Rabbit: > 2,000 - 5,000 mg/kg; OECD Test Guideline 402; (literature value), Based on available data, the classification

criteria are not met.

**Skin irritation** n-Propanol:

Rabbit: No skin irritation; OECD Test Guideline 404 (literature

value)

**Eye irritation** n-Propanol:

Rabbit: Risk of serious damage to eyes. Category 1; OECD Test

Guideline 405 (literature value)

**Sensitisation** n-Propanol

Maximisation Test; Guinea pig: Not sensitizing; OECD Test Guideline 406; (literature value), Based on available data, the

classification criteria are not met.

Carcinogenicity n-Propanol:

The substance has shown not to be genotoxic, therefore it is not expected to have carcinogenic potential., (literature value)



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> Mutagenicity n-Propanol:

In vitro tests did not show mutagenic effects; (literature value)

**Toxicity for reproduction** n-Propanol:

> Rat: OECD Test Guideline 413; No indications that the substance causes adverse effects on reproductive organs.Rat: Inhalation; OECD Guideline 414; Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses,

(literature value)

#### **SECTION 12. Ecological information**

Toxicity to fish n-Propanol:

semi-static test; Pimephales promelas (fathead minnow); 96 h; LC50;

> 100 mg/l; OECD Test Guideline 203; (literature value)

Toxicity to daphnia and other

aquatic invertebrates

static test; Daphnia magna (Water flea); 48 h; EC50; > 100

mg/l(literature value)

n-Propanol:

Toxicity to algae n-Propanol:

static test; Pseudokirchneriella subcapitata (microalgae)Growth rate;

48 h; EC50; > 100 mg/l; (literature value)

Toxicity to bacteria n-Propanol:

static test; 3 h; IC50; > 1,000 mg/l; ; activated sludge, domestic;

(literature value)

Chronic toxicity to fish n-Propanol:

No data available; The study is not necessary.

Chronic toxicity in aquatic

invertebrates

n-Propanol: NOEC; Daphnia magna; ; 21 dEC50; 68.3 mg/lreproduction rate; ;

Fresh water; QSAR, (literature value)

Toxicity for organisms in the

n-Propanol: The study is not necessary.; The substance does not pose a chronic

hazard to soil organisms.

**Toxicity for terrestrial flora** n-Propanol:

Triticum aestivm (wheat); 7 d; EC50; > 500 mg/kg; (literature value)

**Toxicity for other terrrestrial** 

non-mammalian fauna

n-Propanol: The study is not necessary., The product has low potential for

bioaccumulation.

**Biodegradability** n-Propanol:

aerobic; 70 %; 20 d; Readily biodegradable.; OECD Guideline 301

D; (literature value)

**Bioaccumulation** n-Propanol:

Due to the distribution coefficient n-octanol/water, accumulation in

organisms is not expected., (literature value)

Mobility in soil n-Propanol:

Highly mobile in soils. Not expected to adsorb on soil.

Results of PBT and vPvB assessment

Substance is not persistent, bioaccumulative, and toxic (PBT). Substance is not very persistent and very bioaccumulative (vPvB).

Results of PBT and vPvB

n-Propanol:

assessment 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

Other adverse effects n-Propanol:

Additional ecological information unknown



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#### **SECTION 13. Disposal considerations**

**Product** Disposal should be in accordance with local, regional and national

legislations.

Packaging 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: 1274
Class: 3
Packaging group: III; F1;

**Proper shipping name:** n-PROPANOL

**RID** 

UN number: 1274 Class: 3 Packaging group: III; F1

**Proper shipping name:** n-PROPANOL

**ADNR** 

UN number: 1274 Class: 3 Packaging group: III; F1

**Proper shipping name:** n-PROPANOL

**IMDG** 

UN number: 1274
Class: 3
EmS: F-E, S-D
Packaging group: III

**Proper shipping name:** n-PROPANOL

Marine pollutant Not a Marine Pollutant

ICAO/IATA

UN number: 1274 Class: 3 Packaging group: III

**Proper shipping name:** n-PROPANOL **Transport in bulk according** n-Propanol

to Annex II of MARPOL

73/78 and the IBC Code POLLUTION CATEGORY: Y

Ship Type: 3

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#### **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 (NZIoC) All chemical constituents are listed in: New Zealand Inventory of

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.

H318 Causes serious eye damage.

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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