



Safety Data Sheet

Ethanol 99.9/UN

Version 1.01

Revision Date 22.02.2024

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

Product identifier

Trade name Ethanol 99.9/UN

Synonyms Ethyl alcohol; Alcohol; Methyl carbinol

Product code 2020

CAS-No. 64-17-5

EINECS-No. 200-578-6

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

Use Solvent. Raw material Industrial use.

Manufacturer or supplier's details

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

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+86 400 120 6011 (China)
+27 (0)17 610 4444 (South Africa)
0800 112 890 RSA-Local only
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SECTION 2. Hazards identification

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Classification of the substance or mixture

GHS Classification

Classification

Notification of the ministry of industry on the system of classification and hazard communication of hazardous substances B.E. 2555 (GHS 2009)

Flammable liquids

Category 2

GHS label elements

Hazard pictograms

:



Signal word

: Danger

Hazard statements

: H225 Highly flammable liquid and vapour.

Precautionary statements

: **Prevention:**

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. 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.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.



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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

Substance

Ethanol

Contents: ≥ 99.99 % W/W

CAS-No. 64-17-5

Index-No. 603-002-00-5
Hazard statements H225

EC-No. 200-578-6

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SECTION 4. First aid measures

Description of necessary first-aid measures

Inhalation	Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.
Ingestion	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, Foam, CO2, Dry powder.
Unsuitable extinguishing media	Water spray jet
Special hazards arising from the substance or mixture	Flash back possible over considerable distance. Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment for firefighters	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

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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.
Environmental precautions	Prevent product from entering drains. 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	Wear personal protective equipment. Provide sufficient air exchange and/or exhaust in work rooms. Take precautionary measures against static discharges. Ensure all equipment is electrically grounded before beginning transfer operations. Do not breathe vapours or spray mist.
Advice on protection against fire and explosion	Keep away from open flames, hot surfaces and sources of ignition. Use explosion-proof equipment.
Requirements for storage areas and containers	Keep containers tightly closed in a cool, well-ventilated place.
Advice on common storage	No data available.

SECTION 8. Exposure controls/personal protection

Components with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control parameters	Update	Basis
ETHYL ALCOHOL	TWA	1,900 mg/m ³	03 2001	Thailand - OELs
(ETHANOL)	TWA	1,000 ppm	03 2001	Thailand - OELs

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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

Eye protection Safety glasses with side-shields.

Skin and body protection Protective suit.

Hygiene measures Wash hands before breaks and immediately after handling the product.

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
Colour	Colourless
Odour	Alcohol-like
Odour Threshold	No data available.
pH	Not applicable.
Melting point/range	-114.1 °C
Boiling point/boiling range	78.5 °C
Flash point	12 °C; closed cup
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Auto-ignition temperature	No data available.

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Decomposition Temperature

Lower explosion limit	3.1 %(V)
Upper explosion limit	27.7 %(V)
Vapour pressure	No data available.
Relative vapour density	1.59(Air = 1.0)
Density	0.788 g/cm ³ ; 20 °C
Water solubility	Completely soluble
Partition coefficient: n-octanol/water	No data available.
Viscosity, kinematic	1.51 mm ² /s; 20 °C

SECTION 10. Stability and reactivity

Reactivity	Stable under recommended storage conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Heating can release hazardous gases.
Conditions to avoid	Heat, flames and sparks. Extremes of temperature and direct sunlight.
Materials to avoid	Oxidizing agents. Acids and bases
Hazardous decomposition products	Carbon oxides.

SECTION 11. Toxicological information

Acute oral toxicity	Ethanol: LD50 Rat: > 5,000 mg/kg; OECD Test Guideline 401; GLP: noCentral nervous system depression ; (literature value) Based on available data, the classification criteria are not met.
Acute inhalation toxicity	Ethanol: LC50 Rat: 6 h; vapour; > 20 mg/l; OECD Test Guideline 403; Central nervous system; Drowsiness(literature value), Based on

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	available data, the classification criteria are not met.
Acute dermal toxicity	Ethanol: LD50 Dermal Rat: > 5,000 mg/kg; OECD Test Guideline 402; (literature value), Based on available data, the classification criteria are not met.
Skin irritation	Ethanol: Rabbit: Not irritating; OECD Test Guideline 404 (literature value)
Eye irritation	Ethanol: Rabbit: No eye irritation No eye irritation; 24 h; GLP: no; (literature value)
Sensitisation	Ethanol: Maximisation Test; Guinea pig: Not sensitizing; OECD Test Guideline 406; (literature value)
Mutagenicity	Ethanol: In vitro tests did not show mutagenic effects In vivo tests did not show mutagenic effects;

SECTION 12. Ecological information

Toxicity to fish	Ethanol: static test; Leuciscus idus; 48 h; LC50; > 100 mg/l; OECD Test Guideline 203; (literature value)
Toxicity to daphnia and other aquatic invertebrates	Ethanol: static test; Daphnia magna (Water flea); 24 h; EC50; > 100 mg/l(literature value)
Toxicity to algae	Ethanol: static test; Chlorella pyrenoidosaEC50; > 100 mg/l; OECD Test Guideline 201; (literature value)
Toxicity to bacteria	Ethanol: Pseudomonas putida; 16 h; 6,500 mg/l; Toxicity to bacteria
Biodegradability	Ethanol: aerobic; > 70 %; 5 d; Readily biodegradable.; OECD Guideline 301 D; (literature value)
Chemical Oxygen Demand (COD)	Ethanol: ca.1,700 mg/g; Directive 84/449/EEC, C.9; GLP: no;

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SECTION 13. Disposal considerations

Product	Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.
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:	1170
Class:	3
Packaging group:	II; F1;
Proper shipping name:	ETHANOL

RID

UN number:	1170
Class:	3
Packaging group:	II; F1
Proper shipping name:	ETHANOL

IMDG

UN number:	1170
Class:	3
EmS:	F-E, S-D

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Packaging group:	II
Proper shipping name:	ETHANOL
Marine pollutant	Not a Marine Pollutant
ICAO/IATA	
UN number :	1170
Class:	3
Packaging group:	II
Proper shipping name:	ETHANOL
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Ethyl alcohol Pollution Category: Z

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 &

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	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.

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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