Chemical Safety Data Sheet MSDS / SDS

2-isopropoxyethanol SDS

Revision Date:2024-04-25 Revision Number:1

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

Product identifier

Product name: 2-isopropoxyethanol

CAS: 109-59-1

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

Relevant identified uses: For R&D use only. Not for medicinal, household or other use.

Uses advised against: none

Company Identification

Company: Chemicalbook.in

Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090

Telephone: +91 9550333722

SECTION 2: Hazards identification

Classification of the substance or mixture

Acute toxicity - Category 4, Dermal
Eye irritation, Category 2

Acute toxicity - Category 4, Inhalation

GHS label elements, including precautionary statements

Pictogram(s)

Signal word Warning

Hazard statement(s)

H312 Harmful in contact with skin
H319 Causes serious eye irritation
H332 Harmful if inhaled

Precautionary statement(s)

Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P264 Wash ... thoroughly after handling.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.

Response

P302+P352 IF ON SKIN: Wash with plenty of water/...
P317 Get medical help.
P321 Specific treatment (see ... on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Storage

none

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in classification

no data available

SECTION 3: Composition/information on ingredients

Substance

Chemical name:	2-isopropoxyethanol
Common names and synonyms:	2-isopropoxyethanol
CAS number:	109-59-1
EC number:	203-685-6
Concentration:	100%

SECTION 4: First aid measures

Description of necessary first-aid measures

If inhaled

Fresh air, rest.

Following skin contact

Remove contaminated clothes. Rinse skin with plenty of water or shower.

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth. Give one or two glasses of water to drink.

Most important symptoms/effects, acute and delayed

May be harmful by inhalation, ingestion or skin absorption. May cause skin and eye irritation. (USCG, 1999)

Indication of immediate medical attention and special treatment needed, if necessary

Minimum/Potential Fatal Human Dose

3. 3= moderately toxic: probable oral lethal dose (human) 0.5-5 g/kg, between 1 oz & 1 pint (or 1 lb) for 70 kg person (150 lb). ethylene glycol alkyl (and aryl) ethers

Absorption, Distribution and Excretion

The material may readily be absorbed through the intact skin...

SECTION 5: Firefighting measures

Suitable extinguishing media

Alcohol" foam. water may be ineffective

Specific hazards arising from the chemical

Special Hazards of Combustion Products: Emits toxic fumes when heated upon decomposition. (USCG, 1999)

Special protective actions for fire-fighters

Use water spray, powder, foam, carbon dioxide. In case of fire: keep drums, etc., cool by spraying with water.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Remove all ignition sources. Ventilation. Collect leaking and spilled liquid in sealable containers as far as possible.

Environmental precautions

Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Remove all ignition sources. Ventilation. Collect leaking and spilled liquid in sealable containers as far as possible.

Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance

with appropriate laws and regulations.

SECTION 7: Handling and storage

Precautions for safe handling

NO open flames, NO sparks and NO smoking. Above 44°C use a closed system, ventilation and explosion-proof electrical equipment. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Cool. Fireproof. Separated from strong oxidants.SEE ETHERS. ETHERS SHOULD NOT BE STORED NEAR POWERFUL OXIDIZERS OR IN AREAS OF HIGH FIRE HAZARD. THEY SHOULD BE KEPT COOL AND THE CONTAINERS ELECTRICALLY GROUNDED TO AVOID SPARKS. ETHERS

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

TLV: 25 ppm as TWA; (skin).MAK: 43 mg/m3, 10 ppm; peak limitation category: I(2); skin absorption (H); pregnancy risk group: C

Biological limit values

no data available

Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety goggles.

Skin protection

Protective gloves. Protective clothing.

Respiratory protection

Use ventilation, local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state:	Liquid.
Colour:	Colourless.
Odour:	MILD ETHEREAL ODOR
Melting point/freezing point:	-74.57°C. Atm. press.:1 atm.
Boiling point or initial boiling point and boiling range:	145 °C. Atm. press.:1 atm. Remarks:Experimentally derived value.;146.7 °C. Atm. press.:1 atm. Remarks:Value from EPIEB MPBPWIN v1.43 QSAR for predicting boiling point using adapted Stein and Brown method.
Flammability:	Class IC Flammable Liquid: Fl.P. at or above 73°F and below 100°F.
Lower and upper explosion limit/flammability limit:	no data available
Flash point:	> 43 - < 45 °C. Atm. press.:101.76 kPa.
Auto-ignition temperature:	240 °C. Atm. press.:1 atm.
Decomposition temperature:	no data available
pH:	no data available
Kinematic viscosity:	kinematic viscosity (in mm2/s) = 2.7. Temperature:20°C.;kinematic viscosity (in mm2/s) = 1.84. Temperature:40°C.
Solubility:	Miscible (NIOSH, 2016)

Partition coefficient n-octanol/water:	log Pow = 0.43. Temperature:20 °C.
Vapour pressure:	599 Pa. Temperature:25 °C.;1 060 Pa. Temperature:35 °C.;1 800 Pa. Temperature:45 °C.
Density and/or relative density:	903 kg/m3. Temperature:20 °C.
Relative vapour density:	3.6 (AIR= 1)
Particle characteristics:	no data available

SECTION 10: Stability and reactivity

Reactivity

The substance can presumably form explosive peroxides. Reacts violently with strong oxidants.

Chemical stability

VOLATILE

Possibility of hazardous reactions

MODERATE; CAN REACT WITH OXIDIZING MATERIALSETHYLENE GLYCOL ISOPROPYL ETHER acts both as an alcohol and ether. May react violently with strong oxidizing agents. May generate flammable and/or toxic gases with alkali metals, nitrides, and other strong reducing agents. May initiate the polymerization of isocyanates and epoxides.

Conditions to avoid

no data available

Incompatible materials

Oxidizers.

Hazardous decomposition products

no data available

SECTION 11: Toxicological information

Acute toxicity

Oral: LD50 - rat (male) - 3 089 mg/kg bw. Remarks:Results for fasted animals.

Inhalation: NOAEL: Reduction on testis weight - rat (male) - > 3 500 ppm.

Dermal: LD50 - rabbit (male) - 1 337 mg/kg bw.

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

The substance is irritating to the eyes. The substance is mildly irritating to the skin and respiratory tract.

STOT-repeated exposure

The substance may have effects on the blood. This may result in anaemia.

Aspiration hazard

A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: LC50 - Oryzias latipes - > 100 mg/L - 96 h.

Toxicity to daphnia and other aquatic invertebrates: LC50 - Daphnia magna - > 970 mg/L - 48 h.

Toxicity to algae: EC50 - 440 mg/L - 96 h.

Toxicity to microorganisms: EC10 - Pseudomonas putida - 4 600 mg/L - 16 h.

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: UN3271 (For reference only, please check.)
IMDG: UN3271 (For reference only, please check.)
IATA: UN3271 (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: ETHERS, N.O.S. (For reference only, please check.)
IMDG: ETHERS, N.O.S. (For reference only, please check.)
IATA: ETHERS, N.O.S. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: 3 (For reference only, please check.)
IMDG: 3 (For reference only, please check.)
IATA: 3 (For reference only, please check.)

Packing group, if applicable

ADR/RID: II (For reference only, please check.)
IMDG: II (For reference only, please check.)
IATA: II (For reference only, please check.)

Environmental hazards

ADR/RID: No
IMDG: No
IATA: No

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

(PICCS)

Listed.

Vietnam National Chemical Inventory

Listed.

IECSC)

Listed.

Korea Existing Chemicals List (KECL)

Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

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