Chemical Safety Data Sheet MSDS / SDS

[(methylethylene)bis(oxy)]dipropanol SDS

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

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

Product identifier

Product name: [(methylethylene)bis(oxy)]dipropanol

CAS: 24800-44-0

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

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

uses:

Uses advised none

against:

Company Identification

Company: Chemicalbook.in

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

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SECTION 2: Hazards identification

Classification of the substance or mixture

Not classified.

GHS label elements, including precautionary statements Signal word No signal word Hazard statement(s) none Precautionary statement(s) Prevention none Response none Storage none Disposal none Other hazards which do not result in classification

SECTION 3: Composition/information on ingredients

Substance

Chemical name: [(methylethylene)bis(oxy)]dipropanol Common names and

no data available

[(methylethylene)bis(oxy)]dipropanol

synonyms:

CAS number: 24800-44-0 EC number: 246-466-0

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

Non-irritating; no symptoms observed by any exposure route. (USCG, 1999)

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

Absorption, Distribution and Excretion

Is not absorbed through skin in acutely toxic amt even from prolonged & repeated contact.

SECTION 5: Firefighting measures

Suitable extinguishing media

Water, foam, carbon dioxide, dry chemical.

Specific hazards arising from the chemical

Special Hazards of Combustion Products: Acrid fumes of acids and aldehydes may form in fires. (USCG, 1999)

Special protective actions for fire-fighters

Use water spray, powder, foam, carbon dioxide.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Collect leaking and spilled liquid in sealable containers as far as possible. Wash away remainder with plenty of water.

Environmental precautions

Collect leaking and spilled liquid in sealable containers as far as possible. Wash away remainder with plenty of water.

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. 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

Well closed.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

no data available

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 spectacles.

Skin protection

Protective gloves.

Respiratory protection

Use ventilation.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties and safety characteristics

Physical state: Liquid. Viscous.

Colour: Colourless.
Odour: ODORLESS

Melting < -20 °C. Atm. press.:Ca. 101.3 kPa.

point/freezing

point:

Boiling point or 270 °C. Atm. press.:100.47 kPa.

initial boiling point and boiling range:

Flammability: Combustible.

Lower and upper

no data available

explosion

limit/flammability

limit:

Flash point: 145 °C. Atm. press.:100.11 kPa.

Auto-ignition temperature: 232 °C. Atm. press.:> 101.08 - < 102.33 kPa.

Decomposition no data available

temperature:

no data available pH:

Kinematic kinematic viscosity (in mm2/s) = 77.3. Temperature: 20°C.; kinematic viscosity (in mm2/s) =

viscosity: 23.4. Temperature: 40°C.

Solubility: SOL IN WATER, METHANOL, ETHER

Partition log Pow = -0.379. Temperature:21.5 °C.;Pow = 0.418. Temperature:21.5 °C.

coefficient noctanol/water:

0.26 Pa. Temperature: 25 °C. Vapour pressure: 1.02. Temperature:20 °C. Density and/or

relative density:

Relative vapour 6.63 (vs air)

density:

no data available **Particle**

characteristics:

SECTION 10: Stability and reactivity

Reactivity

Attacks some plastics.

Chemical stability

no data available

Possibility of hazardous reactions

COMBUSTIBLE.TRIPROPYLENE GLYCOL is a ether-alcohol derivative. The ether being relatively unreactive. Flammable and/or toxic gases are generated by the combination of alcohols with alkali metals, nitrides, and strong reducing agents. They react with oxoacids and carboxylic acids to form esters plus water. Oxidizing agents convert alcohols to aldehydes or ketones. Alcohols exhibit both weak acid and weak base behavior. They may initiate the polymerization of isocyanates and epoxides. May attack some forms of plastics (USCG, 1999).

Conditions to avoid

no data available

Incompatible materials

no data available

Hazardous decomposition products

no data available

SECTION 11: Toxicological information

Acute toxicity

Oral: LD50 - rat (male/female) - > 2 000 mg/kg bw.

Inhalation: LC50 - rat - > 0.083 mg/L air.

Dermal: LD50 - rabbit (male) - > 16 320 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

no data available

STOT-repeated exposure

no data available

Aspiration hazard

A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20°C.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: LC50 - Oryzias latipes - > 1 000 mg/L - 96 h.

Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - > 1 000 mg/L - 24 h.

Toxicity to algae: EC50 - Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricomutum) - > 1 000 mg/L - 72 h.

Toxicity to microorganisms: EC50 - activated sludge of a predominantly domestic sewage - > 1 000 mg/L - 3 h. Remarks: Respiration rate.

Persistence and degradability

By analogy to dipropylene glycol, a structurally similar compound, tripropylene glycol is expected to be resistant to

biodegradation(SRC). Polypropylene glycol-utilizing bacteria were isolated by enrichment culture; one strain from this culture was able to grow using various polypropylene glycols (diol and triol types) as a carbon source(1). Dipropylene glycol in a five day BOD test, reached 0(2)-5%(3) of the theoretical oxygen demand. Over a four week period with dipropylene glycol added at 30 mg/L, only 0-3% by BOD was degraded(4). Biodegradation of dipropylene glycol proceeds through the oxidation of terminal alcohol groups leading to the cleavage of the ether linkage(1).

Bioaccumulative potential

An estimated BCF value of 0 was calculated for tripropylene glycol(SRC), using an estimated log Kow of -0.50(1,SRC) and a recommended regression-derived equation(2). According to a recommended classification scheme(3), this BCF value indicates that bioconcentration in aquatic organisms will not be an important fate process(SRC).

Mobility in soil

The Koc of tripropylene glycol is estimated as approximately 13(SRC), using an estimated log Kow of -0.50(1,SRC) and a regression-derived equation(2,SRC). According to a recommended classification scheme(3), this estimated Koc value suggests that tripropylene glycol has very high mobility in soil(SRC).

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: UN3077 (For reference only, please check.) IMDG: UN3077 (For reference only, please check.) IATA: UN3077 (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: ENVIRONWENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (For reference only, please check.) IMDG: ENVIRONWENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (For reference only, please check.) IATA: ENVIRONWENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: 9 (For reference only, please check.) IMDG: 9 (For reference only, please check.) IATA: 9 (For reference only, please check.)

Packing group, if applicable

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

Environmental hazards

ADR/RID: Yes IMDG: Yes IATA: Yes

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 Not 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-stoffdatenbank/index-2.jsp

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

Other Information

Health effects of exposure to the substance have been investigated, but none has been found.

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any