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MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1. Product identifiers

Product name: Ethylene glycol, GR 99%+ Product Code: E 1547 CAS No : 107-21-1

1.2. Relevant identified uses of the substance or mixture and uses advised against Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
101, Aarkay Ruby Industrial Estate(1B), Opp Shree Narayan Industrial Estate, Chinchpada, Vasai East, Waliv, Maharashtra 401208.
Email <u>info@ottokemi.com</u>

1.4. Emergency telephone number Phone no. : + 91 22 2207 0099 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Acute toxicity, (Category 4) Specific target organ toxicity repeated exposure, (Category 2), Kidney 2.2 Label elements Labelling according Regulation (EC) No 1272/2008 Pictogram Signal Word Hazard Statements H302 H373

Precautionary Statements P301 + P312 + P330

P314

Supplemental Hazard Statements Reduced Labeling (<= 125 ml) Pictogram Signal Word Hazard Statements Precautionary Statements Supplemental Hazard Statements 2.3 Other hazards H302: Harmful if swallowed. H373: May cause damage to organs through prolonged or repeated exposure if swallowed.

Warning

Harmful if swallowed. May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell, Rinse mouth.

Get medical advice/ attention if you feel unwell.

Warning

none

none

none

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. Ecological information: The substance/mixture does not contain components considered to have endocrine

disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures	
Synonyms	: Ethylene glycolsolution
	Additive Screening Solution 01/Fluka kit no 78374
Formula	: C2H6O2
Molecular weight	: 62,07 g/mol

Component	Classification	Concentration
ethylene glycol		
CAS-No. 107-21-1 EC-No. 203-473-3	Acute Tox. 4; STOT RE 2; H302, H373	>= 30 - < 50 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance. If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section

2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture
Carbon oxides
5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
5.4 Further information
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
 Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
 For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in

suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling Advice on safe handling Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see section 2.2. 7.2 Conditions for safe storage, including any incompatibilities Storage conditions Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place. Storage stabilityRecommended storage temperature 2 - 8 °C Storage class Storage class (TRGS 510): 10: Combustible liquids 7.3 Specific end use(s) Apart from the uses mentioned in section 1.2 no other specific uses are stipulated **SECTION 8: Exposure controls/personal protection** 8.1 Control parameters Ingredients with workplace control parameters 8.2 Exposure controls Personal protective equipment Eye/face protection Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Full contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. Body Protection Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387)

respirator cartridges as a backup to engineering controls. If the respirator is the sole

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means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Control of environmental exposure Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties a) Physical state b) Color c) Odor d) Melting point/freezing point e) Initial boiling point and boiling range f) Flammability (solid, gas) g) Úpper/lower flammability or explosive limits h) Flash point i) Autoignition temperature j) Decomposition temperature k) pH I) Viscosity m) Water solubility n) Partition coefficient: n-octanol/water o) Vapor pressure p) Density Relative density q) Relative vapor

q) Relative vapor density
r) Particle characteristics
s) Explosive properties
t) Oxidizing properties
9.2 Other safety information Relative vapor density

SECTION 10: Stability and reactivity 10.1 Reactivity No data available 10.2 Chemical stability Stable under recommended storage conditions. 10.3 Possibility of hazardous reactions No data available 10.4 Conditions to avoid No data available 10.5 Incompatible materials Strong oxidizing agents 10.6 Hazardous decomposition products In the event of fire: see section 5 liquid colorless No data available -13 °C

195 - 198 °C at 1.013 hPa

No data available

Upper explosion limit: 15,3 %(V) Lower explosion limit: 3,2 %(V)

No data available No data available

No data available

No data available Viscosity, kinematic: No data available Viscosity, dynamic: No data available completely misciblesoluble log Pow: -1,36

0,11 hPa at 20 °C 0,13 hPa at 20 °C 1,04 g/mL at 20 °C No data available No data available

No data available

Not classified as explosive. none

2,14 - (Air = 1.0)

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SECTION 11: Toxicological information

11.1 Information on toxicological effects Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals: Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L. Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant). Special Remarks on Toxicity to Animals: Not available. Special Remarks on Chronic Effects on Humans: Not available. Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: Ecological information

12.1 Toxicity Mixture No data available 12.2 Persistence and degradability No data available 12.3 Bioaccumulative potential No data available 12.4 Mobility in soil No data available 12.5 Results of PBT and vPvB 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 higher. 12.6 Endocrine disrupting properties Product: : The substance/mixture does not contain components Assessment considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. 12.7 Other adverse effects No data available Components ethylene alvcol Toxicity to fish static test LC50 - Pimephales promelas (fathead minnow) -72.860 mg/l - 96 h (US-EPA) Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna (Water flea) - > 100 mg/l -48 h (OECD Test Guideline 202) Toxicity to algae static test NOEC - Pseudokirchneriella subcapitata (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201) Toxicity to fish(Chronic toxicity) flow-through test LC50 - Menidia peninsulae (tidewater silverside) - > 1.500 mg/l - 28 d Remarks: (ECHA) The value is given in analogy to the following substances: triethylene glycol Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity) semi-static test NOEC - Ceriodaphnia dubia (water flea) - 8.590

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mg/l - 7 d (US-EPA)

SECTION 13: Disposal considerations

13.1 Waste treat	sposal considerations					
Product	ment methods					
	t non-recyclable solutions to a li	censed disposal company. Waste materia	al			
		ctive on waste 2008/98/EC as well as	A1			
		icals in original containers. No mixing				
	Handle uncleaned containers li					
Contaminated packaging						
Dispose of as un						
SECTION 14: Tr	ansport information					
14.1 UN number						
ADR/RID: -		IMDG: -	IATA: -			
14.2 UN proper s	hipping name					
ADR/RID	: Not dangerous goods					
IMDG	: Not dangerous goods					
ΙΑΤΑ	: Not dangerous goods					
14.3 Transport ha	azard class(es)					
ADR/RID: -		IMDG: -	IATA: -			
14.4 Packaging g	Jroup					
ADR/RID: -		IMDG: -	IATA: -			
14.5 Environmen	ital hazards		LATA A			
ADR/RID: no		IMDG Marine pollutant: no	IATA: no			
14.6 Special pred No data available						
Further information						
Not classified as dangerous in the meaning of transport regulations.						
Not classified as	dangerous in the meaning of the					
	egulatory information					
	Ith and environmental regulation	s/legislation specific for the				
substance or mix						
This material safe	ety data sheet complies with the	e requirements of Regulation (EC) No.				

1907/2006. 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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