OTTO CHEMIE PVT LTD

201, 51-53 Maroo Bhavan, Kalbadevi, Mumbai - 400002, India. Tel : + 91 22 2207 0099 / 6638 2599 Email : info@ottokemi.com, Web : <u>www.ottokemi.com</u> _____

MATERIAL SAFETY DATA SHEET

1.Identification 1.1GHS Product identifier Polypropylene glycol 1000 Code P 2021 2.Hazard identification 2.1Classification of the substance or mixture Not classified. 2.2GHS label elements, including precautionary s Pictogram(s) No Signal word No Hazard statement(s) no Prevention no Response no Storage no 2.3Other hazards which do not result in classification none 3.Composition/information on ingredients	statements > symbol. > signal word. ine ine ine ine ine ine	P C					
Chemical name	Common names and synonyms	CAS number	EC number	Concentration			
poly(propylene glycol) macromolecule	poly(propylene glycol) macromolecule	25322-69-4	none	100%			
 4. First-aid measures 4. Description of necessary first-aid measures General advice Consult a physician. Show this 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 Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If swallowed Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. 4.2Most important symptoms/effects, acute and delayed The compound has a very low toxicity; few, if any, symptoms will be observed. Contact of liquid with eyes causes slight transient pain and irritation similar to that caused by a mild soap. (USCG, 1999) 4.3Indication of immediate medical attention and special treatment needed, if necessary /SRP:/ Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention / Ethylene elvel odiveding, and related comounds/ 							
5.Fire-fighting measures 5.1Extinguishing media Suitable extinguishing media Fire Extinguishing Agents: Water, dry chemical, for 5.2Specific hazards arising from the chemical no data available 5.3Special protective actions for fire-fighters Wear self-contained breathing apparatus for firefig	pam, carbon dioxide (USCG, 1999)						
6 Accidental release measures							

6.Accidental release measures6.1Personal precautions, protective equipment and emergency proceduresUse personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. 6.3Methods and materials for containment and cleaning up

SRP: Wastewater from contaminant suppression, cleaning of protective clothing/equipment, or contaminated sites should be contained and evaluated for subject chemical or decomposition product concentrations. Concentrations shall be lower than applicable environmental discharge or disposal criteria. Alternatively, pretreatment and/or discharge to a permitted wastewater treatment facility is acceptable only after review by the governing authority and assurance that "pass through" violations will not occur. Due consideration shall be given to remediation worker exposure (inhalation, dermal and ingestion) as well as fate during treatment, transfer and disposal. If it is not practicable to manage the chemical in this fashion, it must be evaluated in accordance with EPA 40 CFR Part 261, specifically Subpart B, in order to determine the appropriate local, state and federal requirements for disposal.

7.Handling and storage

7.1Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2. 7.2Conditions for safe storage, including any incompatibilities

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

8.Exposure controls/personal protection

8.1Control parameters

Occupational Exposure limit values no data available

Biological limit values

no data available

8.2Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. 8.3Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. 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 EU Directive 89/686/EEC and the standard EN 374 derived from it. Respiratory protection

Wear dust mask when handling large quantities.

Thermal hazards

no data available

9.Physical and chemical properties

Physical state	(USCG 1999)
Colour	Clear, (add)
Odour	no data available
Melting point/ freezing point	-14.44\u00b0C (USCG, 1999)
Boiling point or initial boiling point and boiling	no data available
range	
Flammability	no data available
Lower and upper explosion limit / flammability	Lower flammable limit: 2.6% by volume; Upper flammable limit: 12.5% by volume
limit	
Flash point	229\u00b0C
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	Noncorrosive
Kinematic viscosity	no data available
Solubility	Lower molecular weight members are sol in water
Partition coefficient n-octanol/water (log value) no data available
Vapour pressure	<0.01 mm Hg at 20\u00b0C /contains 130-190 ppm proprietary phenolic antioxidant/
Density and/or relative density	1.007g/mLat 25\u00b0C
Relative vapour density	>1 (vs air)
Particle characteristics	no data available
10.Stability and reactivity	
10.1Reactivity	
na data availabla	

no data available 10.2Chemical stability

Quite stable chemically

10.3Possibility of hazardous reactions

... Do not present hazards of flammability except at elevated temp ... Fire point (deg F OC): 405 /ppg 400/; 525 /ppg 750/; 505 /ppg 1200/; 510 /ppg 2000/; 505 /ppg 3000/; 510 /ppg 4000/ /From table/POLYPROPYLENE GLYCOL is an alcohol. 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 them to aldehydes or ketones. Alcohols exhibit both weak acid and weak base behavior. They may initiate the polymerization of isocyanates and epoxides. 10.4Conditions to avoid

no data available 10.5Incompatible materials no data available 10.6Hazardous decomposition products no data available

11.Toxicological information Acute toxicity Oral: no data available Inhalation: no data available Dermal: no data available 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 no data available

12. Ecological information 12.1Toxicity

Toxicity to fish: LC50; Species: Lepomis macrochirus (Bluegill, length 33-75 mm); Conditions: freshwater, static, 23\u00b0C, pH 7.6-7.9, hardness 55 mg/L CaCO3; Concentration: 1,700,000 ug/L for 96 hr Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

12.2Persistence and degradability

no data available

12.3Bioaccumulative potential

no data available

12.4Mobility in soil

no data available

12.50ther adverse effects

no data available

13.Disposal considerations 13.1Disposal 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.

14.Transport information 14.1UN Number ADR/RID: Not dangerous goods. 14.2UN Proper Shipping Name ADR/RID: unknown IMDG: unknown IATA: unknown

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

rous goods. IATA: Not dangerous goods.
rous goods. IATA: Not dangerous goods.
ů ů ů
IATA: no
Code

44.07

15.Regulatory information 15.1Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
poly(propylene glycol) macromolecule	poly(propylene glycol) macromolecule	25322-69-4	none
European Inventory of Existing Commercial Chemical Substances (EINECS)			
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.
Philippines Inventory of Chemicals and Chemical Substar	nces (PICCS)		Listed.
Vietnam National Chemical Inventory		C	Listed.
Chinese Chemical Inventory of Existing Chemical Substar	nces (China IECSC)		Listed.

Section 16: Other Information

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.