

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 10/10/2020 Revision date: 08/25/2020 Supersedes: 07/22/2018

Version: 1.0

| SECTION 1: Identification | |
|--|---|
| 1.1. Identification | |
| Product form | : Substance |
| Trade name | : POLY-A® 37-5000 |
| Chemical name | POLY[OXY(METHYL-1,2ETHANEDIYL)], ALPHA., ALPHA.', ALPHA."-1,2,3- PROPANETRIYLTRIS[.OMEGA(2-AMINOMETHYLETHOXY)- |
| CAS-No. | : 64852-22-8 |
| Formula | : (C3H6O)n(C3H6O)n(C3H6O)nC12H29N3O3 |
| Synonyms | : Glycerol tris[poly(propylene glycol) amine terminated] ether / Poly(propyleneglycol)triamine |
| 1.2. Recommended use and restric | ctions on use |
| Use of the substance/mixture | : Chemical intermediate for urethane polymer production |
| 1.3. Supplier | |
| Monument Chemical 2450 Olin Road Brandenburg, KY 40108 - USA T (270)422-6860 <u>sds@monumentchemical.com</u> - <u>www.mo</u> | onumentchemical.com |
| 1.4. Emergency telephone number | |

Emergency number

: 24 HR CHEMTREC: 1-800-424-9300 (International +1 703-741-5970); 24 HR Emergency Assistance: 1-270-422-6860

| SECTION 2: Hazard(s) identification | | | |
|--|--------------------------|----------------------------------|--|
| 2.1. Classification of t | the substance or mixture | | |
| GHS US classification | | | |
| Skin corrosion/irritation Category 2 | H315 | Causes skin irritation | |
| Serious eye damage/eye irritation Category 2A | H319 | Causes serious eye irritation | |
| Specific target organ toxicity (single exposure) Category 3 | H335 | May cause respiratory irritation | |
| Hazardous to the aquatic environment - Acute Hazard Category 3 | H402 | Harmful to aquatic life | |
| Full text of H statements : se | e section 16 | | |

| Full text of H | statements : | see section 16 | |
|----------------|--------------|----------------|--|
| | | | |

| 2.2. | .2. GHS Label elements, including precautionary statements | | |
|---------|--|---|-----|
| GHS U | S labeling | | |
| Hazar | d pictograms (GHS US) | | |
| Signal | word (GHS US) | : Warning | |
| Hazar | d statements (GHS US) | H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation H402 - Harmful to aquatic life | |
| Preca | utionary statements (GHS US) | P261 - Avoid breathing dust, fume, gas, mist, spray, vapors. P264 - Wash hands thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P302+P352 - If on skin: Wash with plenty of water. P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove | |
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| | contact lenses, if present and easy to do. Continue P312 - Call a doctor, a POISON CENTER if you fe P321 - Specific treatment (see a doctor on this lab P332+P313 - If skin irritation occurs: Get medical P337+P313 - If eye irritation persists: Get medical P362+P364 - Take off contaminated clothing and P403+P233 - Store in a well-ventilated place. Kee P405 - Store locked up. P501 - Dispose of contents/container to hazardous accordance with local, regional, national and/or int | eel unwell. el). advice/attention. advice/attention. wash it before reuse. p container tightly clos s or special waste colle | |
|---|---|--|--|
| .3. Other hazards which do not result | in classification | | |
| lo additional information available | | | |
| 2.4. Unknown acute toxicity (GHS US) | | | |
| Not applicable | | | |
| SECTION 3: Composition/Informati | on on ingredients | | |
| .1. Substances | | | |
| Name | | Product identifier | % |
| POLY[OXY(METHYL-1,2ETHANEDIYL)],.ALPHA AMINOMETHYLETHOXY)- (Main constituent) | ,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[.OMEGA(2- | (CAS-No.) 64852-22-8 | 99 – 100 |
| Full text of hazard classes and H-statements : | see section 16 | | <u> </u> |
| 3.2. Mixtures | | | |
| lot applicable | | | |
| SECTION 4: First-aid measures | | | |
| .1. Description of first aid measures | | | |
| First-aid measures general | : Never give anything by mouth to an unconscious p advice (show the label where possible). Call a pois | | |
| First-aid measures after inhalation | Remove person to fresh air and keep comfortable keep at rest in a position comfortable for breathing doctor/physician if you feel unwell. Call a poison c | . Call a POISON CEN | TER or |
| First-aid measures after skin contact | : Wash with plenty of soap and water. Wash contan occurs: Gently wash with plenty of soap and water advice/attention. Specific treatment (see Consult a skin with plenty of water. Take off contaminated cl advice/attention. | r, Get medical advice/a doctor/medical service | attention. Get medical e on this label). Wash |
| First-aid measures after eye contact | Rinse cautiously with water for several minutes. R do. Continue rinsing. If eye irritation persists: Cons advice/attention. If eye irritation persists: Get medi | sult an eye specialist. | |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Obtain em center/doctor/physician if you feel unwell. | | ition. Call a poison |
| .2. Most important symptoms and effe | ects (acute and delayed) | | |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria | are not met. | |
| Symptoms/effects after inhalation | : May cause respiratory irritation. | | |
| Symptoms/effects after skin contact | : Causes skin irritation. Irritation. | | |
| Symptoms/effects after eye contact | : Causes serious eye irritation. Eye irritation. | | |
| .3. Immediate medical attention and s | pecial treatment, if necessary | | |
| reat symptomatically. | | | |
| SECTION 5: Fire-fighting measures | | | |
| 5.1. Suitable (and unsuitable) extinguis | | | |
| Suitable extinguishing media | : Foam. Dry powder. Carbon dioxide. Water spray. | Sand. | |
| | | | |
| Unsuitable extinguishing media | : Do not use a heavy water stream | | |
| Unsuitable extinguishing media | : Do not use a heavy water stream. | | |
| Unsuitable extinguishing media .2. Specific hazards arising from the of Hazardous decomposition products in case of | chemical | | |

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| 5.3. | Special protective equipment and | precautions for fire-fighters | | |
|---------------------------|---|---|--|--|
| Firefighting instructions | | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. | | |
| Protec | ction during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. | | |
| SECT | ION 6: Accidental release me | asures | | |
| 6.1. | Personal precautions, protective e | equipment and emergency procedures | | |
| 6.1.1. | For non-emergency personnel | | | |
| Emerç | gency procedures | : Ventilate spillage area. Evacuate unnecessary personnel. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. | | |
| 6.1.2. | For emergency responders | | | |
| Protec | ctive equipment | Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection". | | |
| Emerç | gency procedures | : Ventilate area. | | |
| 6.2. | Environmental precautions | | | |
| Prevent | t entry to sewers and public waters. Not | ify authorities if liquid enters sewers or public waters. Avoid release to the environment. | | |
| 6.3. | Methods and material for containn | | | |
| | ds for cleaning up | : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. | | |
| Other | information | : Dispose of materials or solid residues at an authorized site. | | |
| 6.4. | Reference to other sections | | | |
| See He | ading 8. Exposure controls and person | al protection. For further information refer to section 13. | | |
| SECT | ION 7: Handling and storage | | | |
| 7.1. | Precautions for safe handling | | | |
| | utions for safe handling | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing fume, dust, gas, mist, spray, vapors. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Wear personal protective equipment. | | |
| Hygie | ne measures | : Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. | | |
| 7.2. | Conditions for safe storage, inclue | | | |
| Storaç | ge conditions | : Keep only in the original container in a cool, well ventilated place away from : Ignition sources, Incompatible materials. Keep container tightly closed. Store locked up. Store in a well- ventilated place. Keep cool. | | |
| Incom | patible products | : Strong bases. Strong acids. | | |
| Incom | patible materials | : Sources of ignition. Direct sunlight. | | |
| SECT | | conclusion | | |
| 8.1. | ION 8: Exposure controls/per Control parameters | | | |
| 0.1. | Control parameters | | | |
| | .Y[OXY(METHYL-1,2ETHANEDIYL)],./ NOMETHYLETHOXY)- (64852-22-8) | ALPHA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[.OMEGA(2- | | |
| | additional information available | | | |
| 8.2. | Appropriate engineering controls | | | |
| | priate engineering controls | : Ensure good ventilation of the work station. | | |
| | onmental exposure controls | : Avoid release to the environment. | | |
| 8.3. | Individual protection measures/Pe | rsonal protective equipment | | |
| Perso | nal protective equipment: | | | |
| Avoid | all unnecessary exposure. | | | |
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Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses. Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

| SECTION 9: Physical and chemical properties | | |
|---|------------------------------------|--|
| 9.1. Information on basic physical and ch | | |
| Physical state | : Liquid | |
| Appearance | : Colorless to pale yellow liquid. | |
| Color | : Colourless to yellow | |
| Odor | : Amine-like | |
| Odor threshold | : No data available | |
| pH | : No data available | |
| Melting point | : Not applicable | |
| Freezing point | : No data available | |
| Boiling point | : No data available | |
| Flash point | : > 200 °C | |
| Relative evaporation rate (butyl acetate=1) | : No data available | |
| Flammability (solid, gas) | : Non flammable. | |
| Vapor pressure | : No data available | |
| Relative vapor density at 20 °C | : No data available | |
| Relative density | : >1 | |
| Specific gravity / density | : > 1 g/ml | |
| Molecular mass | : 5000 g/mol | |
| Solubility | : Insoluble in water. | |
| Partition coefficient n-octanol/water (Log Pow) | : No data available | |
| Auto-ignition temperature | : No data available | |
| Decomposition temperature | : No data available | |
| Viscosity, kinematic | : No data available | |
| Viscosity, dynamic | : No data available | |
| Explosion limits | : No data available | |
| Explosive properties | : No data available | |
| Oxidizing properties | : No data available | |
| 9.2. Other information | | |

No additional information available

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| SECTION 10: Stability and reactivity | | | |
| 10.1. Reactivity | | | |
| The product is non-reactive under normal condition | ons of use, storage and transport. | | |
| 10.2. Chemical stability | - · · | | |
| 10.2. Onemical stability | | | |
| Not established. | | | |
| 10.3. Possibility of hazardous reactions | | | |
| Not established. | | | |
| | | | |
| 10.4. Conditions to avoid | | | |
| Direct sunlight. Extremely high or low temperature | λS | | |
| 10.5. Incompatible materials | | | |
| Strong acids. Strong bases. | | | |
| 10.6. Hazardous decomposition products | | | |
| fume. Carbon monoxide. Carbon dioxide. | | | |
| SECTION 11: Toxicological informati | on | | |
| 11.1. Information on toxicological effects | | | |
| Acute toxicity (oral) | : Not classified | | |
| Acute toxicity (dermal) | : Not classified | | |
| Acute toxicity (inhalation) | : Not classified | | |
| | PHA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[.OMEGA(2-AMINOMETHYLETHOXY)- | | |
| (64852-22-8) | | | |
| LD50 oral rat | 2 – 3 g/kg | | |
| LD50 dermal rat | > 2 g/kg | | |
| ATE US (oral) | 2000 mg/kg body weight | | |
| Skin corrosion/irritation | : Causes skin irritation. | | |
| Serious eye damage/irritation | : Causes serious eye irritation. | | |
| Respiratory or skin sensitization | : Not classified | | |
| Germ cell mutagenicity | : Not classified | | |
| Carcinogenicity | : Not classified | | |
| Reproductive toxicity | : Not classified | | |
| STOT-single exposure | : May cause respiratory irritation. | | |
| STOT-repeated exposure | : Not classified | | |
| Aspiration hazard | : Not classified | | |
| Viscosity, kinematic | : No data available | | |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. | | |
| Symptoms/effects after inhalation | : May cause respiratory irritation. | | |
| Symptoms/effects after skin contact | : Causes skin irritation. Irritation. | | |
| Symptoms/effects after eye contact | : Causes serious eye irritation. Eye irritation. | | |
| | | | |
| SECTION 12: Ecological information | SECTION 12: Ecological information | | |
| 12.1. Toxicity | | | |
| Ecology - general | : Harmful to aquatic life. | | |
| Ecology - water | :Harmful to aquatic life. | | |

| Ecology - water | : Harmiul to aquatic life. |
|--|---|
| POLY[OXY(METHYL-1,2ETHANEDIYL)],.ALP (64852-22-8) | HA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[.OMEGA(2-AMINOMETHYLETHOXY)- |
| LC50 fish 1 | 68 mg/l |

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| 2.2. Persistence and degradability | | |
| POLY[OXY(METHYL-1,2ETHANEDIYL)],.ALPHA.,.ALPHA.',.ALPHA.''-1,2,3-PROPANETRIYLTRIS[.OMEGA(2-AMINOMETHYLETHOXY)- (64852-22-8) | | |
| Persistence and degradability | Not established. | |
| 2.3. Bioaccumulative potential | | |
| POLY[OXY(METHYL-1,2ETHANEDIYL)],.ALP (64852-22-8) | HA.,.ALPHA.',.ALPHA.''-1,2,3-PROPANETRIYLTRIS[.OMEGA(2-AMINOMETHYLETHOXY)- | |
| Bioaccumulative potential | Not established. | |
| 2.4. Mobility in soil | | |
| o additional information available | | |
| 2.5. Other adverse effects | | |
| | | |
| | | |
| Other information | : Avoid release to the environment. | |
| ECTION 13: Disposal considerations | | |
| 3.1. Disposal methods | | |
| Naste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. | |
| Product/Packaging disposal recommendations | Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. | |
| Ecology - waste materials | : Avoid release to the environment. | |
| ECTION 14: Transport information | | |
| | | |
| Department of Transportation (DOT) | | |
| n accordance with DOT | | |
| Not regulated | | |
| Transport by sea | | |
| Not regulated | | |
| , and the second s | | |
| Air transport | | |
| Not regulated | | |
| ECTION 15: Regulatory information | | |
| 5.1. US Federal regulations | | |
| POLY[OXY(METHYL-1,2ETHANEDIYL)],.ALP (64852-22-8) | HA.,.ALPHA.',.ALPHA."-1,2,3-PROPANETRIYLTRIS[.OMEGA(2-AMINOMETHYLETHOXY)- | |
| Listed on the United States TSCA (Toxic Subst | ances Control Act) inventory | |
| EPA TSCA Regulatory Flag | XU - XU - indicates a substance exempt from reporting under the Chemical | |

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Data Reporting Rule, (40 CFR 711).

15.2. International regulations

CANADA

POLY[OXY(METHYL-1,2ETHANEDIYL)],.ALPHA.,.ALPHA.',.ALPHA.''-1,2,3-PROPANETRIYLTRIS[.OMEGA.-(2-AMINOMETHYLETHOXY)-(64852-22-8)

Listed on the Canadian NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

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National regulations

POLY[OXY(METHYL-1,2ETHANEDIYL)],.ALPHA.,.ALPHA.',.ALPHA.''-1,2,3-PROPANETRIYLTRIS[.OMEGA.-(2-AMINOMETHYLETHOXY)-(64852-22-8)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

| according to Federal Register / Vol. 77 | , No. 58 / Monday, March 26, 2012 / Rules and R | equilations |
|--|---|-------------|
| according to reactar register / vol. / r | 140. 00 / Monday, March 20, 2012 / Rules and 1 | logulations |

| Revision date | : 08/25/2020 |
|-------------------|--------------|
| Other information | : None. |

Full text of H-phrases:

| | H315 | Causes skin irritation |
|--------------------|------|--|
| | H319 | Causes serious eye irritation |
| | H335 | May cause respiratory irritation |
| | H402 | Harmful to aquatic life |
| NFPA health hazard | | : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury. |
| NFPA fire hazard | | : 1 - Materials that must be preheated before ignition can occur. |
| NFPA reactivity | | : 0 - Material that in themselves are normally stable, even under fire conditions. |

SDS US (GHS HazCom 2012)

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