SAFETY DATA SHEET

GHEMSERVICE.

1. Identification

| Product identifier | Dimethylanthranilate | | |
|--|---|---------------------------------|--|
| Other means of identification Product code | NG-16187 | | |
| Synonym(s) | Benzoic acid, 2-(methylamino)- | , methyl ester | |
| Recommended use | For Laboratory Use Only | | |
| Recommended restrictions | None known. | | |
| Manufacturer/Importer/Supplier/Distributor information | | | |
| Manufacturer | | | |
| Company name Address | Chem Service, Inc. 660 Tower Lane West Chester, PA 19380 United States | | |
| Telephone | Toll Free Direct | 800-452-9994 610-692-3026 | |
| Website E-mail | www.chemservice.com info@chemservice.com | | |
| Emergency phone number | Chemtrec US Chemtrec outside US | 800-424-9300 +1 703-527-3887 | |

2. Hazard(s) identification

| | - | |
|--|--|---|
| Physical hazards | Flammable liquids | Category 4 |
| Health hazards | Not classified. | |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |
| Label elements | | |
| Hazard symbol | None. | |
| Signal word | Warning | |
| Hazard statement | Combustible liquid. | |
| Precautionary statement | | |
| Prevention | Keep away from heat/sparks/open flames/ho protection/face protection. | t surfaces No smoking. Wear protective gloves/eye |
| Response | In case of fire: Use appropriate media to extin | nguish. |
| Storage | Store in a well-ventilated place. Keep cool. | |
| Disposal | Dispose of contents/container in accordance | with local/regional/national/international regulations. |
| Hazard(s) not otherwise classified (HNOC) | None known. | |
| Supplemental information | Not applicable. | |
| | | |

3. Composition/information on ingredients

Substances

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| Chemical name | Common name and synonyms | CAS number | % |
|----------------------|--|------------|-----|
| Dimethylanthranilate | Benzoic acid, 2-(methylamino)-, methyl ester | 85-91-6 | 100 |

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measuresInhalationMove to fresh air. Call a physician if symptoms develop or persist.Skin contactWash off with soap and water. Get medical attention if irritation develops and persists.Eye contactRinse with water. Get medical attention if irritation develops and persists.IngestionRinse mouth. Get medical attention if symptoms occur.

| | Most important symptoms/effects, acute and delayed | Direct contact with eyes may cause temporary irritation. |
|--------------------------------|--|--|
| | Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. |
| | General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |
| | 5. Fire-fighting measures | |
| | Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). |
| | Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| | Specific hazards arising from the chemical | The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed. |
| | Special protective equipment and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| | Fire-fighting equipment/instructions | In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. |
| | Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |
| | General fire hazards | Combustible liquid. |
| 6. Accidental release measures | | |
| | Personal precautions. | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of |

| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
|---|--|
| Methods and materials for containment and cleaning up | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. |
| | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. |
| | Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. |
| | Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |
| 7. Handling and storage | |
| Precautions for safe handling | Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. |
| Conditions for safe storage, including any incompatibilities | Keep away from heat, sparks and open flame. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers. |
| 8. Exposure controls/perso | onal protection |
| Occupational exposure limits | No exposure limits noted for ingredient(s). |
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Appropriate engineering controls | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |

Individual protection measures, such as personal protective equipment

| Eye/face protection | Wear safety glasses with side shields (or goggles). |
|---------------------|---|
| Skin protection | |
| Hand protection | Wear protective gloves. |
| Other | Wear suitable protective clothing. |

| Respiratory protection | If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. |
|--------------------------------|---|
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

9. Physical and chemical properties

| Appearance | |
|--|--------------------------------------|
| Physical state | Liquid. |
| Form | Liquid or solid depending on storage |
| Color | Light yellow. |
| Odor | Not available. |
| Odor threshold | Not available. |
| рН | Not available. |
| Melting point/freezing point | 65.3 - 67.1 °F (18.5 - 19.5 °C) |
| Initial boiling point and boiling range | 492.8 °F (256 °C) 101.325 kPa |
| Flash point | 195.8 °F (91.0 °C) |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or exp | losive limits |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | 0 kPa at 25 °C |
| Vapor density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Density | 1.124 g/ml |
| Flammability class | Combustible IIIA estimated |
| Molecular formula | C9-H11-N-O2 |
| Molecular weight | 165.19 g/mol |
| Specific gravity | 1.12 at 15 °C |
| | |

10. Stability and reactivity

| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
|---------------------------------------|--|
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological information

Information on likely routes of exposure

| information on likely routes of ea | |
|--|--|
| Ingestion | Expected to be a low ingestion hazard. |
| Inhalation | No adverse effects due to inhalation are expected. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Symptoms related to the physical, chemical and toxicological characteristics | Direct contact with eyes may cause temporary irritation. |
| Information on toxicological effe | ects |
| Acute toxicity | Expected to be a low hazard for usual industrial or commercial handling by trained personnel. |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not available. |
| Skin sensitization | This product is not expected to cause skin sensitization. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |
| US. OSHA Specifically Regu Not listed. | lated Substances (29 CFR 1910.1001-1050) |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not available. |
| 12. Ecological information | |
| Ecotoxicity | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. |
| Persistence and degradability | No data is available on the degradability of this product |

| Persistence and degradability | No data is available on the degradability of this product. |
|-------------------------------|---|
| Bioaccumulative potential | No data available. |
| Mobility in soil | No data available. |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

13. Disposal considerations

| Disposal instructions | Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used |
|--|---|
| | container. Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| Waste from residues / unused products | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Contaminated packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. |

14. Transport information

DOT

Not regulated as dangerous goods.

ΙΑΤΑ

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not available. Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated. CERCLA Hazardous Substance List (40 CFR 302.4) Not listed SARA 304 Emergency release notification Not regulated. US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed. Superfund Amendments and Reauthorization Act of 1986 (SARA) **Hazard categories** Immediate Hazard - No Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No SARA 302 Extremely hazardous substance Not listed. SARA 311/312 Hazardous Yes chemical SARA 313 (TRI reporting) Not regulated. Other federal regulations Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated. Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated. Safe Drinking Water Act Not regulated. (SDWA) US state regulations **US. Massachusetts RTK - Substance List** Not regulated. US. New Jersey Worker and Community Right-to-Know Act Not regulated. US. Pennsylvania RTK - Hazardous Substances Not regulated. **US. Rhode Island RTK** Not regulated. **US. California Proposition 65** California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. International Inventories Country(s) or region Inventory name Australia Australian Inventory of Chemical Substances (AICS) Canada Domestic Substances List (DSL) Canada Non-Domestic Substances List (NDSL)

| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
|--------|---|-----|
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |

Material name: Dimethylanthranilate

Yes

Yes

No

On inventory (yes/no)*

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

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|---------------|--|
| Issue date | 03-30-2015 |
| Revision date | 03-30-2015 |
| Version # | 02 |
| NFPA ratings | Health: 1 Flammability: 2 Instability: 0 |
| Disclaimer | The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc. |
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