

1. Identification

Product identifier 1,4-Dioxane Solution

Other means of identification

Item S-10220M1

Recommended use For Laboratory Use Only

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information**Manufacturer**

Company name Chem Service, Inc.

Address 660 Tower Lane
West Chester, PA 19380
United States

Telephone Toll Free 800-452-9994
Direct 610-692-3026

Website www.chemservice.com

E-mail info@chemservice.com

Emergency phone number Chemtrec US 800-424-9300
Chemtrec outside US +1 703-527-3887

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2

Health hazards Acute toxicity, oral Category 3
Acute toxicity, dermal Category 3
Acute toxicity, inhalation Category 3
Serious eye damage/eye irritation Category 2A
Reproductive toxicity Category 2
Specific target organ toxicity, single exposure Category 1
Specific target organ toxicity, repeated exposure Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Causes serious eye irritation. Toxic if inhaled. Suspected of damaging fertility or the unborn child. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement**Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

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| Response | If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor. Specific treatment (see this label). Rinse mouth. If eye irritation persists: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. |
| Storage | Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazard(s) not otherwise classified (HNOC) | Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion. |
| Supplemental information | 0.01% of the mixture consists of component(s) of unknown acute inhalation toxicity. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|---------------|--------------------------|------------|-------|
| Methanol | | 67-56-1 | 99.99 |
| 1,4-Dioxane | | 123-91-1 | 0.01 |

4. First-aid measures

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| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician. |
| Skin contact | Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTER or doctor/physician if you feel unwell. Get medical attention if irritation develops and persists. |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| Ingestion | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |
| Most important symptoms/effects, acute and delayed | Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed. |
| General information | Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. |

5. Fire-fighting measures

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| Suitable extinguishing media | Alcohol resistant foam. Water fog. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Specific hazards arising from the chemical | Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. 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. |

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| 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 | Highly flammable liquid and vapor. |

6. Accidental release measures

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|--|--|
| Personal precautions, protective equipment and emergency procedures | Immediately evacuate personnel to safe areas. 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 breathe mist or vapor. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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). Take precautionary measures against static discharge. Use only non-sparking tools. 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. |
| Environmental precautions | Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination. |

7. Handling and storage

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| Precautions for safe handling | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid contact during pregnancy/while nursing. Avoid prolonged exposure. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code". |
| Conditions for safe storage, including any incompatibilities | Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Avoid spark promoters. Eliminate sources of ignition. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers. |

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Type | Value |
|----------------------------|------|---------------------------------|
| 1,4-Dioxane (CAS 123-91-1) | PEL | 360 mg/m3 |
| Methanol (CAS 67-56-1) | PEL | 100 ppm 260 mg/m3 200 ppm |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|----------------------------|-------------|--------------------|
| 1,4-Dioxane (CAS 123-91-1) | TWA | 20 ppm |
| Methanol (CAS 67-56-1) | STEL TWA | 250 ppm 200 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|----------------------------|-------------|---|
| 1,4-Dioxane (CAS 123-91-1) | Ceiling | 3.6 mg/m3 |
| Methanol (CAS 67-56-1) | STEL TWA | 1 ppm 325 mg/m3 250 ppm 260 mg/m3 200 ppm |

Biological limit values

ACGIH Biological Exposure Indices

| Components | Value | Determinant | Specimen | Sampling Time |
|------------------------|---------|-------------|----------|---------------|
| Methanol (CAS 67-56-1) | 15 mg/l | Methanol | Urine | * |

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

| | |
|----------------------------|-----------------------------------|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Methanol (CAS 67-56-1) | Can be absorbed through the skin. |

US - Minnesota Haz Subs: Skin designation applies

| | |
|----------------------------|---------------------------|
| 1,4-Dioxane (CAS 123-91-1) | Skin designation applies. |
| Methanol (CAS 67-56-1) | Skin designation applies. |

US - Tennessee OELs: Skin designation

| | |
|----------------------------|-----------------------------------|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Methanol (CAS 67-56-1) | Can be absorbed through the skin. |

US ACGIH Threshold Limit Values: Skin designation

| | |
|----------------------------|-----------------------------------|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
| Methanol (CAS 67-56-1) | Can be absorbed through the skin. |

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

| | |
|------------------------|-----------------------------------|
| Methanol (CAS 67-56-1) | Can be absorbed through the skin. |
|------------------------|-----------------------------------|

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| | |
|----------------------------|-----------------------------------|
| 1,4-Dioxane (CAS 123-91-1) | Can be absorbed through the skin. |
|----------------------------|-----------------------------------|

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. 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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear eye/face protection. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear protective gloves.

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| Other | Wear appropriate chemical resistant 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 eat, drink or 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 |
| Color | Not available. |
| Odor | Not available. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | -144.04 °F (-97.8 °C) estimated |
| Initial boiling point and boiling range | 148.46 °F (64.7 °C) estimated |
| Flash point | 53.6 °F (12.0 °C) estimated |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | 7.3 % estimated |
| Flammability limit - upper (%) | Not available. |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | 169.3 hPa estimated |
| Vapor density | Not available. |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not available. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 867.2 °F (464 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Density | 0.78652 g/cm3 estimated |
| Flammability class | Flammable IB estimated |
| Percent volatile | 100 % estimated |
| Specific gravity | 0.79 estimated |
| VOC (Weight %) | 100 % estimated |

10. Stability and reactivity

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| 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 | Hazardous polymerization does not occur. |
| Conditions to avoid | Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |

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| Incompatible materials | Strong oxidizing agents. |
| Hazardous decomposition products | No hazardous decomposition products are known. |

11. Toxicological information

Information on likely routes of exposure

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|---------------------|--|
| Inhalation | Toxic by inhalation. May cause damage to organs by inhalation. |
| Skin contact | Toxic in contact with skin. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Toxic if swallowed. |

Symptoms related to the physical, chemical and toxicological characteristics Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity Toxic by inhalation. Toxic if swallowed. Toxic in contact with skin. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

| Components | Species | Test Results |
|----------------------------|------------|-------------------------|
| 1,4-Dioxane (CAS 123-91-1) | | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rabbit | 7600 mg/kg |
| | Rat | > 8300 mg/kg |
| Inhalation | | |
| LC50 | Mouse | 37 mg/l, 2 Hours |
| | Rat | 46 mg/l, 2 Hours |
| Oral | | |
| LD50 | Cat | 2000 mg/kg |
| | Dog | 2100 mg/kg |
| | Guinea pig | 3150 mg/kg |
| | Mouse | 5700 mg/kg |
| | Rabbit | 2000 mg/kg |
| | Rat | 5150 mg/kg |
| | | 5.2 ml/kg |
| Methanol (CAS 67-56-1) | | |
| <u>Acute</u> | | |
| Dermal | | |
| LD50 | Rabbit | 15800 mg/kg |
| Inhalation | | |
| LC50 | Mouse | 79.43 mg/l, 134 Minutes |
| | Rat | > 115.9 mg/l, 4 Hours |
| | | 64000 ppm, 4 Hours |
| | | 82.1 mg/l, 6 Hours |
| Oral | | |
| LD50 | Monkey | 6000 mg/kg |
| | Mouse | 7300 mg/kg |
| | Pig | > 5000 mg/kg |
| | Rabbit | 14.4 g/kg |
| | Rat | 5628 mg/kg |
| Other | | |
| LD50 | Guinea pig | 3556 mg/kg |

| Components | Species | Test Results |
|------------|---------|--------------|
| | Hamster | 8555 mg/kg |
| | Mouse | 4100 mg/kg |
| | Rabbit | 1826 mg/kg |
| | Rat | 2131 mg/kg |

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation Causes serious eye 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.

IARC Monographs. Overall Evaluation of Carcinogenicity

1,4-Dioxane (CAS 123-91-1) 2B Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

1,4-Dioxane (CAS 123-91-1) Reasonably Anticipated to be a Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure Causes damage to organs.

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure.

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.

| Components | | Species | Test Results |
|----------------------------|------|---------------------------------------|------------------------|
| 1,4-Dioxane (CAS 123-91-1) | | | |
| Aquatic | | | |
| Fish | LC50 | Inland silverside (Menidia beryllina) | 6700 mg/l, 96 hours |
| Methanol (CAS 67-56-1) | | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | > 10000 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | > 100 mg/l, 96 hours |

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

1,4-Dioxane -0.27
Methanol -0.77

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

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| 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

| | |
|-------------------------------------|---|
| UN number | UN1230 |
| UN proper shipping name | Methanol, solution (Methanol RQ = 5001 LBS) |
| Transport hazard class(es) | |
| Class | 3 |
| Subsidiary risk | - |
| Label(s) | 3 |
| Packing group | II |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | IB2, T7, TP2 |
| Packaging exceptions | 150 |
| Packaging non bulk | 202 |
| Packaging bulk | 242 |

IATA

| | |
|-------------------------------------|---|
| UN number | UN1230 |
| UN proper shipping name | Methanol solution (Methanol) |
| Transport hazard class(es) | |
| Class | 3 |
| Subsidiary risk | 6.1(PGI, II) |
| Packing group | II |
| Environmental hazards | No. |
| ERG Code | 3L |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Other information | |

| | |
|-------------------------------------|----------|
| Passenger and cargo aircraft | Allowed. |
| Cargo aircraft only | Allowed. |

IMDG

| | |
|-------------------------------------|---|
| UN number | UN1230 |
| UN proper shipping name | METHANOL SOLUTION (Methanol) |
| Transport hazard class(es) | |
| Class | 3 |
| Subsidiary risk | 6.1(PGI, II) |
| Packing group | II |
| Environmental hazards | |
| Marine pollutant | No. |
| EmS | F-E, S-D |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |

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

DOT



IATA; IMDG



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)

| | |
|----------------------------|---------|
| 1,4-Dioxane (CAS 123-91-1) | Listed. |
| Methanol (CAS 67-56-1) | 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 - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

| Chemical name | CAS number | % by wt. |
|---------------|------------|----------|
| Methanol | 67-56-1 | 99.99 |

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

1,4-Dioxane (CAS 123-91-1)
Methanol (CAS 67-56-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US - New Jersey RTK - Substances: Listed substance

1,4-Dioxane (CAS 123-91-1)

Methanol (CAS 67-56-1)

US - Pennsylvania RTK - Hazardous Substances: Special hazard

1,4-Dioxane (CAS 123-91-1)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

1,4-Dioxane (CAS 123-91-1)

Methanol (CAS 67-56-1)

US. Massachusetts RTK - Substance List

1,4-Dioxane (CAS 123-91-1)

Methanol (CAS 67-56-1)

US. New Jersey Worker and Community Right-to-Know Act

1,4-Dioxane (CAS 123-91-1)

Methanol (CAS 67-56-1)

US. Pennsylvania RTK - Hazardous Substances

1,4-Dioxane (CAS 123-91-1)

Methanol (CAS 67-56-1)

US. Pennsylvania Worker and Community Right-to-Know Law

1,4-Dioxane (CAS 123-91-1)

Methanol (CAS 67-56-1)

US. Rhode Island RTK

1,4-Dioxane (CAS 123-91-1)

Methanol (CAS 67-56-1)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,4-Dioxane (CAS 123-91-1)

Listed: January 1, 1988

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Methanol (CAS 67-56-1)

Listed: March 16, 2012

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| 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 |
| 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 |

*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

| | |
|---------------|--|
| Issue date | 07-31-2014 |
| Revision date | 09-28-2016 |
| Version # | 02 |
| NFPA ratings | Health: 4 Flammability: 3 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.

Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.

This Safety Data Sheet (SDS) is intended only for use with Chem Service, Inc. products and should not be relied on for use with materials from any other supplier even if the chemical name(s) on the product are identical! Whenever using an SDS for a solution or mixture the user should refer to the SDS for every component of the solution or mixture. Chem Service warrants that this SDS is based upon the most current information available to Chem Service at the time it was last revised. THIS WARRANTY IS EXCLUSIVE, AND CHEM SERVICE, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. This SDS is provided gratis and CHEM SERVICE, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES.

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This product is furnished FOR LABORATORY USE ONLY.

Composition / Information on Ingredients: Ingredients

Revision Information