SAFETY DATA SHEET



1. Identification

Product identifier Hexaldehyde (DNPH Derivative) Solution

Other means of identification

S-12172W4

For Laboratory Use Only Recommended use

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Chem Service, Inc. 660 Tower Lane **Address**

West Chester, PA 19380

United States

Toll Free 800-452-9994 **Telephone** Direct

610-692-3026

Website www.chemservice.com E-mail info@chemservice.com

Chemtrec US 800-424-9300 **Emergency phone number**

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 Category 1

exposure

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. Use only outdoors or in a well-ventilated area. 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. Wear

protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all Response

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.

Material name: Hexaldehyde (DNPH Derivative) Solution 2558 Version #: 03 Revision date: 10-30-2014 Issue date: 10-29-2014 **Storage** Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place.

Keep cool. Store locked up.

Disposal

Hazard(s) not otherwise classified (HNOC)

Supplemental information

Dispose of contents/container in accordance with local/regional/national/international regulations.

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. 0.1% of the mixture consists of component(s) of unknown acute oral toxicity. 0.1% of the mixture

consists of component(s) of unknown acute dermal toxicity. 0.1% 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 | 79 - < 80 |
| Acetonitrile | | 75-05-8 | 19 - < 20 |
| Hexaldehyde (DNPH Derivative) | | 1527-97-5 | 0.1 |

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

4. First-aid measures

Skin contact

Ingestion

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.

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

ersists

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. 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

Indication of immediate medical attention and special treatment needed

General information

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.

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.

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

Suitable extinguishing media

Alcohol resistant foam. Water fog. Carbon dioxide (CO2). 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.

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
General fire hazards

Use standard firefighting procedures and consider the hazards of other involved materials.

Highly flammable liquid and vapor.

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6. Accidental release measures

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

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 | Туре | Value | |
| Acetonitrile (CAS 75-05-8) | PEL | 70 mg/m3 | |
| | | 40 ppm | |
| Methanol (CAS 67-56-1) | PEL | 260 mg/m3 | |
| | | 200 ppm | |
| US. ACGIH Threshold Limit Value | s | | |
| Components | Туре | Value | |
| Acetonitrile (CAS 75-05-8) | TWA | 20 ppm | |

Material name: Hexaldehyde (DNPH Derivative) Solution

| Components | Туре | Value | |
|--|---------------|--------------------|--|
| Methanol (CAS 67-56-1) | STEL | 250 ppm | |
| | TWA | 200 ppm | |
| US. NIOSH: Pocket Guide to Chen | nical Hazards | | |
| Components | Туре | Value | |
| <u> </u> | Type TWA | Value 34 mg/m3 | |
| <u> </u> | | | |
| Components Acetonitrile (CAS 75-05-8) Methanol (CAS 67-56-1) | | 34 mg/m3 | |
| Acetonitrile (CAS 75-05-8) | TWA | 34 mg/m3 20 ppm | |

Biological limit values

| 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

Acetonitrile (CAS 75-05-8) Can be absorbed through the skin. Methanol (CAS 67-56-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Acetonitrile (CAS 75-05-8) Skin designation applies. Skin designation applies. Methanol (CAS 67-56-1)

US - Tennesse OELs: Skin designation

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

US ACGIH Threshold Limit Values: Skin designation

Acetonitrile (CAS 75-05-8) 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.

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.

200 ppm

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.

Other Wear appropriate chemical resistant clothing.

If engineering controls do not maintain airborne concentrations below recommended exposure Respiratory protection

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.

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such General hygiene

considerations 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. Not available. Odor **Odor threshold** Not available. Not available. pН

-144.04 °F (-97.8 °C) estimated Melting point/freezing point

Initial boiling point and boiling

range

148.46 °F (64.7 °C) estimated

42.0 °F (5.6 °C) estimated Flash point

Evaporation rate Not available. Flammability (solid, gas) Not available. Upper/lower flammability or explosive limits

Flammability limit - lower

3 % estimated

(%)

Flammability limit - upper

16 % estimated

Not available. Explosive limit - lower (%) Explosive limit - upper (%) Not available.

159.27 hPa estimated Vapor pressure

Vapor density Not available. Not available. Relative density

Solubility(ies)

Solubility (water) Not available. Not available. Partition coefficient

(n-octanol/water)

867.2 °F (464 °C) estimated **Auto-ignition temperature**

Not available. **Decomposition temperature** Not available Viscosity

Other information

Density 0.786658 g/cm3 estimated Flammable IB estimated Flammability class

Percent volatile 99.9 % estimated Specific gravity 0.79 estimated 99.9 % estimated VOC (Weight %)

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Material is stable under normal conditions. **Chemical stability** Possibility of hazardous Hazardous polymerization does not occur.

reactions

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

Ingestion Toxic if swallowed.

Inhalation Toxic by inhalation. May cause damage to organs by inhalation.

Skin contact Toxic in contact with skin. Eye contact Causes serious eve irritation.

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

Information on toxicological effects

Toxic by inhalation. Toxic if swallowed. Toxic in contact with skin. Expected to be a low hazard for **Acute toxicity**

usual industrial or commercial handling by trained personnel.

Components **Species Test Results**

Acetonitrile (CAS 75-05-8)

Acute Dermal

LD50 Rabbit 390 mg/kg

Material name: Hexaldehyde (DNPH Derivative) Solution

| omponents | Species | Test Results |
|-----------------------|------------|-------------------------|
| | | 0.5 ml/kg |
| Inhalation | | |
| LC100 | Dog | 16000 ppm, 4 Hours |
| LC50 | Guinea pig | 5655 ppm, 4 Hours |
| | Mouse | 3587 ppm, 4 Hours |
| | | 2693 ppm, 1 Hours |
| | Rabbit | 2825 ppm, 4 Hours |
| | Rat | 17100 ppm, 4 Hours |
| | | 7500 ppm, 8 Hours |
| | | 330 ppm, 90 Days |
| | | 75 mg/l |
| Oral | | Q |
| LD50 | Guinea pig | 140 mg/kg |
| | | 0.177 ml/kg |
| | Mouse | 269 mg/kg |
| | Rat | 158 mg/kg |
| | | 1.68 - 4.49 ml/kg |
| Other | | ŭ |
| LD50 | Mouse | 0.25 g/kg |
| | Rat | 1100 mg/kg |
| | | 0.85 ml/kg |
| ethanol (CAS 67-56-1) | | |
| Acute | | |
| 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 |
| | 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.

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Carcinogenicity

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.

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

exposure.

12. Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the **Ecotoxicity**

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Test Results

Species Components

Aquatic

LC50 Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours Fish

Methanol (CAS 67-56-1)

Acetonitrile (CAS 75-05-8)

Aquatic

Crustacea EC50 Water flea (Daphnia magna) > 10000 mg/l, 48 hours LC50 Fish Fathead minnow (Pimephales promelas) > 100 mg/l, 96 hours

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

Bioaccumulative potential No data available. Partition coefficient n-octanol / water (log Kow)

-0.34Acetonitrile Methanol -0.77

Mobility in soil No data available.

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation Other adverse effects

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.

Dispose in accordance with all applicable regulations. Local disposal regulations

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

US RCRA Hazardous Waste U List: Reference

U003 Acetonitrile (CAS 75-05-8) Methanol (CAS 67-56-1) U154

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).

Empty containers should be taken to an approved waste handling site for recycling or disposal. Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport information

DOT

UN1993 **UN** number

UN proper shipping name Transport hazard class(es) Flammable liquids, n.o.s. (Methanol RQ = 6233 LBS, Acetonitrile RQ = 25410 LBS)

Class 3 Subsidiary risk 3 Label(s)

Material name: Hexaldehyde (DNPH Derivative) Solution

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

Packing group

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions IB2, T7, TP1, TP8, TP28

Packaging exceptions 150
Packaging non bulk 202
Packaging bulk 242

IATA

UN number UN1993

UN proper shipping name Flammable liquid, n.o.s. (Methanol, Acetonitrile)

Transport hazard class(es)
Class 3
Subsidiary risk Packing group ||

Packing group II Environmental hazards No. ERG Code 3H

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 UN1993

UN proper shipping name Transport hazard class(es) FLAMMABLE LIQUID, N.O.S. (Methanol, Acetonitrile)

Class 3
Subsidiary risk Packing group II
Environmental hazards

Marine pollutant No. EmS F-E. S-E

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Fransport in bulk according to Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and

the IBC Code

DOT



IATA; IMDG



15. Regulatory information

US federal regulationsThis product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

One or more components are not listed on TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetonitrile (CAS 75-05-8) 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

No

chemical

SARA 313 (TRI reporting)

| Chemical name | CAS number | % by wt. | |
|---------------|------------|-----------|--|
| Methanol | 67-56-1 | 79 - < 80 | |
| Acetonitrile | 75-05-8 | 19 - < 20 | |

Other federal regulations

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

Acetonitrile (CAS 75-05-8) 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

Not regulated.

(SDWA)

US state regulations

US. Massachusetts RTK - Substance List

Acetonitrile (CAS 75-05-8) Methanol (CAS 67-56-1)

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

Acetonitrile (CAS 75-05-8) 500 LBS Methanol (CAS 67-56-1) 500 LBS

US. Pennsylvania RTK - Hazardous Substances

Acetonitrile (CAS 75-05-8) Methanol (CAS 67-56-1)

US. Rhode Island RTK

Acetonitrile (CAS 75-05-8) Methanol (CAS 67-56-1)

US. California Proposition 65

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

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) | No |
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | No |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | No |

Country(s) or region Inventory name On inventory (yes/no)*

Philippines Philippine Inventory of Chemicals and Chemical Substances

(PICCS)

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

Substances Control Act (TSCA) Inventory No

*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
 10-29-2014

 Revision date
 10-30-2014

Version # 03

NFPA ratings Health: 2

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,

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