SAFETY DATA SHEET



1. Identification

Product identifier 2-Methoxyethyl acetate

Other means of identification

Item N-10392

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 hazardsFlammable liquidsCategory 3Health hazardsAcute toxicity, oralCategory 4Acute toxicity, dermalCategory 4Acute toxicity, inhalationCategory 4Serious eye damage/eye irritationCategory 2B

Specific target organ toxicity, single exposure Category 3 narcotic effects

Environmental hazards Hazardous to the aquatic environment, acute Category 3

Reproductive toxicity

hazard

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Flammable liquid and vapor. Harmful if swallowed. Harmful in contact with skin. Causes eye

irritation. Harmful if inhaled. May cause drowsiness or dizziness. May damage fertility or the

Category 1

unborn child. Harmful to aquatic life.

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. Avoid breathing mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Material name: 2-Methoxyethyl acetate

If swallowed: Call a poison center/doctor if you feel unwell. If on skin (or hair): Take off Response

> 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. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Specific treatment (see this label). Rinse mouth. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to

extinguish.

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Storage

Keep cool. Store locked up.

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

Chemical name	Common name and synonyms	CAS number	%
2-Methoxyethyl acetate		110-49-6	100

4. First-aid measures

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 if you feel unwell.

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON Skin contact

CENTER or doctor/physician if you feel unwell. Get medical attention if irritation develops and

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.

Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Ingestion

Most important Exposed individuals may experience eye tearing, redness, and discomfort. Vapors have a narcotic

symptoms/effects, acute and effect and may cause headache, fatigue, dizziness and nausea. delaved

Indication of immediate Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water medical attention and special 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 treatment needed oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information Take off all contaminated clothing immediately. 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. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire. Unsuitable extinguishing media

Specific hazards arising from Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source

of ignition and flash back. During fire, gases hazardous to health may be formed. the chemical

Special protective equipment Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

and precautions for firefighters

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do Fire fighting so without risk. equipment/instructions

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

General fire hazards Flammable liquid and vapor.

Material name: 2-Methoxyethyl acetate

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6. Accidental release measures

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. Avoid inhalation of vapors. 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. 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. This product is miscible in water.

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. Use water spray to reduce vapors or divert vapor cloud drift. 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 release to the environment. Contact local authorities in case of spillage to drain/aquatic

environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

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. 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 taste or swallow. Avoid breathing vapor. 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. Avoid release to the environment. Do not empty into drains.

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. 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

Material	ir Contaminants (29 CFR 1910.1000) Type	Value	
2-Methoxyethyl acetate (CAS 110-49-6)	PEL	120 mg/m3	
,		25 ppm	
US. ACGIH Threshold Limit Valu	ies		
Material	Туре	Value	
2-Methoxyethyl acetate (CAS 110-49-6)	TWA	0.1 ppm	
US. NIOSH: Pocket Guide to Cho	emical Hazards		
Material	Туре	Value	
2-Methoxyethyl acetate (CAS 110-49-6)	TWA	0.5 mg/m3	
,		0.1 ppm	

Material name: 2-Methoxyethyl acetate

Biological limit values

ACGIH Biological Exposure Indices

Material	Value	Determinant	Specimen	Sampling Time
2-Methoxyethyl acetate (CAS 110-49-6)	1 mg/g	2-Methoxyaceti c acid	Creatinine in urine	*

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

Exposure guidelines

US - California OELs: Skin designation

2-Methoxyethyl acetate (CAS 110-49-6) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

2-Methoxyethyl acetate (CAS 110-49-6) Skin designation applies.

US - Tennessee OELs: Skin designation

2-Methoxyethyl acetate (CAS 110-49-6) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

2-Methoxyethyl acetate (CAS 110-49-6) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

2-Methoxyethyl acetate (CAS 110-49-6) Can be absorbed through the skin.

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

2-Methoxyethyl acetate (CAS 110-49-6) 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

Wear protective gloves. Hand protection

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.

Wear appropriate thermal protective clothing, when necessary. Thermal hazards

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 Colorless Not available. Odor **Odor threshold** Not available. Not available. pН -85.18 °F (-65.1 °C) Melting point/freezing point

293 °F (145 °C) Initial boiling point and boiling

range

Flash point 113.0 °F (45.0 °C) Closed Cup

132.1 °F (55.6 °C) Open Cup

Not available. **Evaporation rate** Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits Flammability limit - lower 1.5

(%)

Flammability limit - upper

(%)

12.3

Not available. Explosive limit - lower (%) Explosive limit - upper (%) Not available. 0.27 kPa at 20 °C Vapor pressure

Vapor density 4 1

Relative density Not available.

Solubility(ies)

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

(n-octanol/water)

Auto-ignition temperature 741.2 °F (394 °C) **Decomposition temperature** Not available. **Viscosity** Not available.

Other information

Density 1.0074 g/cm3

Combustible II estimated Flammability class

C5-H10-O3 Molecular formula Molecular weight 118.13 g/mol

Percent volatile 100 % Specific gravity 1.01 VOC (Weight %) 100 %

10. Stability and reactivity

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

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

reactions

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the Conditions to avoid

flash point. Contact with incompatible materials.

Incompatible materials

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Harmful if

inhaled

Harmful in contact with skin. Skin contact

Causes eye irritation. Eve contact Harmful if swallowed. Ingestion

Symptoms related to the physical, chemical and toxicological characteristics Exposed individuals may experience eye tearing, redness, and discomfort. Symptoms of

overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Information on toxicological effects

Harmful if inhaled. Harmful if swallowed. Harmful in contact with skin. Narcotic effects. Expected **Acute toxicity**

to be a low hazard for usual industrial or commercial handling by trained personnel.

Product Species Test Results

2-Methoxyethyl acetate (CAS 110-49-6)

Acute Dermal

LD50 Rabbit 5.29 g/kg

Material name: 2-Methoxyethyl acetate N-10392 Version #: 02 Revision date: 11-26-2015 Issue date: 12-02-2014

Product	Species	Test Results	
Inhalation			
LC50	Cat	2500 mg/l, 9 Hours	
	Guinea pig	22 mg/l, 1 Hours	
	Rabbit	1000 mg/l, 8 Hours	
	Rat	700 mg/l, 4 Hours	
Oral			
LD50	Guinea pig	1250 mg/kg	
	Rat	1250 ma/ka	

^{*} 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

Causes eye irritation.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo 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 Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Possible reproductive hazard. May damage fertility or the unborn child.

Specific target organ toxicity -

single exposure

Narcotic effects.

Specific target organ toxicity -

Specific target orgai repeated exposure

Not classified.

Aspiration hazard

Not available.

Chronic effects Prolonged inhalation may be harmful.

Troionged initialization may be

12. Ecological information

Ecotoxicity Harmful to aquatic life.

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 instructionsCollect 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 codeThe 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

UN1189 **UN** number

UN proper shipping name Ethylene glycol monomethyl ether acetate

Transport hazard class(es)

Class 3 Subsidiary risk 3 Label(s) Packing group Ш

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

Special provisions B1. IB3. T2. TP1

150 Packaging exceptions Packaging non bulk 203 Packaging bulk 242

IATA

UN1189 **UN** number

UN proper shipping name Ethylene glycol monomethyl ether acetate

Transport hazard class(es)

Class 3 Subsidiary risk Ш Packing group **Environmental hazards** No. **ERG Code** 3L

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

Other information

Passenger and cargo Allowed.

aircraft

Cargo aircraft only Allowed.

IMDG

UN number UN1189

UN proper shipping name ETHYLENE GLYCOL MONOMETHYL ETHER ACETATE

Not available.

Transport hazard class(es)

Class 3 Subsidiary risk **Packing group** Ш **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

DOT





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)

2-Methoxyethyl acetate (CAS 110-49-6) 1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

2-Methoxyethyl acetate (CAS 110-49-6) 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 Yes

chemical

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.	
2-Methoxyethyl acetate	110-49-6	100	

Other federal regulations

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

2-Methoxyethyl acetate (CAS 110-49-6)

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 - New Jersey RTK - Substances: Listed substance

2-Methoxyethyl acetate (CAS 110-49-6)

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))

2-Methoxyethyl acetate (CAS 110-49-6)

US. Massachusetts RTK - Substance List

2-Methoxyethyl acetate (CAS 110-49-6)

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

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2-Methoxyethyl acetate (CAS 110-49-6)

US. Pennsylvania RTK - Hazardous Substances

2-Methoxyethyl acetate (CAS 110-49-6)

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

2-Methoxyethyl acetate (CAS 110-49-6)

US. Rhode Island RTK

2-Methoxyethyl acetate (CAS 110-49-6)

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

Inventory name

2-Methoxyethyl acetate (CAS 110-49-6) Listed: January 1, 1993 **US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**2-Methoxyethyl acetate (CAS 110-49-6) Listed: January 1, 1993

International Inventories

Country(s) or region

obuility (3) of region	inventory name	On mivernory (yearno)
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
 12-02-2014

 Revision date
 11-26-2015

Version # 02

Disclaimer The

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.

Material name: 2-Methoxyethyl acetate

On inventory (yes/no)*