

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: Indium Methoxyethoxide

Product Code: IN-METOX-01-LIQ

CAS Number: 330465-88-8

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351
Emergency telephone number:
+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

GHS US classification

Flammable liquids Category 3 H226 Flammable liquid and vapor

Acute toxicity (dermal) Category 4 H312 Harmful in contact with skin

Acute toxicity (inhalation:dust,mist) Category 4 H332 Harmful if inhaled

Skin corrosion/irritation Category 2 H315 Causes skin irritation

Serious eye damage/eye irritation Category 2A H319 Causes serious eye irritation

Reproductive toxicity Category 1B H360 May damage fertility or the unborn child



Signal word (GHS US) : Danger

Hazard statements (GHS US) : H226 - Flammable liquid and vapor

H312+H332 - Harmful in contact with skin or if inhaled

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H360 - May damage fertility or the unborn child

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P210 - Keep away from heat, open flames, sparks. - No smoking.

P233 - Keep container tightly closed.

P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing vapors.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see first aid instructions on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish.
P403+P235 - Keep in a cool place
P405 - Store locked up.
P501 - Dispose of contents/container to licensed waste disposal facility..

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name / CAS Number

2-Methoxyethanol / 109-86-4

Indium methoxyethoxide / 330465-88-8

SECTION 4. FIRST AID MEASURES

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician.

First-aid measures after skin contact : Wash with plenty of soap and water. Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Get medical advice/attention.

Symptoms/effects : May damage fertility or the unborn child.

Symptoms/effects after inhalation : Harmful if inhaled. May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Causes skin irritation. Harmful in contact with skin.

Symptoms/effects after eye contact : Causes serious eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed.

Chronic symptoms : Methoxyethanol, a hydrolysis product, is known to have a chronic effect on the central nervous system.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media : Do not use straight streams.

Fire hazard : Flammable liquid and vapor. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapor and mist.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General measures : Eliminate ignition sources. Use special care to avoid static electric charges.

For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Use only nonsparking tools.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid all eye and skin contact and do not breathe vapor and mist.

Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Use only non-sparking tools.

Hygiene measures : Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.

Storage conditions : Keep container tightly closed. Keep in a cool place. Store locked up.

Incompatible materials : Moist air. Oxidizing agent. Water.

Storage area : Store in a well-ventilated place. Store away from heat.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

2-Methoxyethanol (109-86-4)

ACGIH ACGIH OEL TWA [ppm] 0.1 ppm

OSHA OSHA PEL (TWA) [1] 80 mg/m³

OSHA OSHA PEL (TWA) [2] 25 ppm

IDLH IDLH [ppm] 200 ppm

NIOSH NIOSH REL (TWA) 0.3 mg/m³

NIOSH NIOSH REL TWA [ppm] 0.1 ppm

Appropriate engineering controls

Appropriate engineering controls : Provide local exhaust or general room ventilation

Individual protection measures/Personal protective equipment

Personal protective equipment:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Avoid all unnecessary exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified organic vapor (black cartridge) respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid

Appearance : Liquid.

Molecular mass : 340.08 g/mol

Color : Straw to dark.

Odor : Mild.

Odor threshold : No data available

Refractive index : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : < 0 °C

Boiling point : 118 °C (initial)

Flash point : 39 °C

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability : Flammable liquid and vapor

Vapor pressure : 6.2 mm Hg @ 20°C (methoxyethanol)

Relative vapor density at 20 °C : 2.5 – 2.7

Relative density : 1.02

% Volatiles : > 75 %

Solubility : Reacts with water.

Partition coefficient n-octanol/water (Log Pow) : No data available

Partition coefficient n-octanol/water (Log Kow) : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosion limits : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

No additional information available

Chemical stability

Stable.

Possibility of hazardous reactions

No additional information available

Conditions to avoid

Heat. Sparks. Open flame.

Incompatible materials

Moist air. Oxidizers. Water

Hazardous decomposition products

Indium oxide fumes. Organic acid vapors.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Harmful in contact with skin.

Acute toxicity (inhalation) : Harmful if inhaled.

INDIUM METHOXYETHOXIDE, 15-18% in methoxyethanol

ATE US (dermal) 1560.976 mg/kg body weight

ATE US (dust, mist) 1.829 mg/l/4h

2-Methoxyethanol (109-86-4)

LD50 oral rat 2370 mg/kg 2460 mg/kg

LD50 dermal rabbit 1280 mg/kg

LC50 Inhalation - Rat [ppm] 1478 ppm (Exposure time: 7 h)

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Methoxyethanol is listed as a potential mutagen.

Carcinogenicity : Not classified

None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Reproductive toxicity : May damage fertility or the unborn child.

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms

: Methoxyethanol can cause headaches, dizziness, drowsiness, irritation of eyes, tremor, ataxia, gastrointestinal disturbance, or weight loss.

Symptoms/effects after inhalation : Harmful if inhaled. May cause irritation to the respiratory tract.
Symptoms/effects after skin contact : Causes skin irritation. Harmful in contact with skin.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : May be harmful if swallowed.
Chronic symptoms : Methoxyethanol, a hydrolysis product, is known to have a chronic effect on the central nervous system.
Reason for classification : Expert judgment

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

2-Methoxyethanol (109-86-4)

LC50 - Fish [1] 10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

LC50 - Fish [2] 9650 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Persistence and degradability

No additional information available

Mobility in soil

No additional information available

Other adverse effects

Effect on the ozone layer : No additional information available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility..

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14. TRANSPORT INFORMATION

UN number

UN-No.(DOT) : 1993

DOT NA No UN1993

UN proper shipping name

Transport document description (DOT) : UN1993 Flammable liquids, n.o.s. (INDIUM METHOXYETHOXIDE, 15-18% in methoxyethanol), 3, III

Proper Shipping Name (DOT) : Flammable liquids, n.o.s.
(INDIUM METHOXYETHOXIDE, 15-18% in methoxyethanol)

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : III - Minor Danger

Hazard labels (DOT) : 3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Symbols : G - Identifies PSN requiring a technical name

Emergency Response Guide (ERG) Number : 128

Other information : No supplementary information available.

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Air transport

DOT Quantity Limitations Passenger aircraft/rail
(49 CFR 173.27)

: 60 L

DOT Quantity Limitations Cargo aircraft only (49
CFR 175.75)

: 220 L

SECTION 15. REGULATORY INFORMATION

International regulations

CANADA

2-Methoxyethanol (109-86-4)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

2-Methoxyethanol (109-86-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

2-Methoxyethanol (109-86-4)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

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

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

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

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

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on CICR (Turkish Inventory and Control of Chemicals)

2-Methoxyethanol (109-86-4)

U.S. -

California -

Proposition 65

- Carcinogens

List

U.S. - California -

Proposition 65 -

Developmental

Toxicity

U.S. - California -

Proposition 65 -

Reproductive

Toxicity - Female

U.S. - California -

Proposition 65 -

Reproductive Toxicity

- Male

No significant risk level

(NSRL)

Maximum allowable

dose level (MADL)

No Yes No Yes

2-Methoxyethanol (109-86-4)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

U.S. - Pennsylvania - RTK (Right to Know) List

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.