

SAFETY DATA SHEET

Preparation Date: 8/28/2015

Revision Date: 10/25/2016

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: E1024
Product Name: 2-ETHOXYETHYL ACETATE, REAGENT

Other means of identification

Synonyms: 2-Ethoxyethanol acetate
 2-Ethoxyethanol, ester with acetic acid
 2-Ethoxyethyl acetate
 Acetic acid, 2-ethoxyethyl ester
 Cellosolve acetate
 EGEEA
 Ektasolve EE acetate solvent
 Ethoxy acetate
 Ethoxyethyl acetate
 Ethylene glycol ethyl ether acetate
 Ethylene glycol monoethyl ether acetate
 Ethylglycol acetate
 Glycol ether EE acetate
 Glycol monoethyl ether acetate
 Oxytol acetate
 Poly-Solv EE acetate
 beta-Ethoxyethyl acetate

CAS #: 111-15-9
RTECS # KK8225000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Solvent. In organic synthesis. Degreasing agent. Cosmetics. Textile printing. Solvent for paints, lacquers and printing inks. Research and Development. Manufacture of substances.

Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000.

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300

Contact Person: Martin LaBenz (West Coast)

Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Serious eye damage/eye irritation	Category 2B
Reproductive toxicity	Category 1B
Flammable liquids	Category 3

Label elements

Danger

Hazard statements
Harmful if inhaled
Causes mild skin irritation
Causes eye irritation
May damage fertility or the unborn child
Flammable liquid and vapor



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

May be harmful if swallowed
Causes mild skin irritation

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
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 eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IN CASE OF FIRE: Use dry chemical, water spray, alcohol-resistant foam or CO₂ to extinguish.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

If skin irritation occurs: Get medical advice/attention

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

Product code: E1024

Product name: 2-ETHOXYETHYL
ACETATE, REAGENT

2 / 13

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
2-Ethoxyethyl Acetate	111-15-9	100

4. FIRST AID MEASURES**First aid measures**

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.
- Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
- Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

- Symptoms** Harmful by inhalation. Causes eye irritation. Mild skin irritation. May damage fertility or the unborn child. May be harmful if swallowed. Albuminuria. Abdominal discomfort, nausea, vomiting, cramping. Acute solvent syndrome (general anesthesia, defatting of the skin/dermatitis, kidney injury, hepatotoxicity, respiratory irritation). Central nervous system depression. Chronic exposure may affect liver, kidneys/urinary system, and blood.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician:** Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES**Extinguishing Media**

- Suitable Extinguishing Media:** Dry chemical. Carbon dioxide (CO₂). Water spray, mist, or foam.
- Unsuitable Extinguishing Media:** Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

- Hazardous Combustion Products:** Carbon Oxides.

Specific hazards:

Flammable. May be ignited by heat, sparks or flames. Vapor may travel considerable distance to source of ignition and flash back. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks). Container explosion may occur under fire conditions or when heated. Fire may produce irritating, corrosive and/or toxic gases

Special Protective Actions for Firefighters**Specific Methods:**

Water mist may be used to cool closed containers. For large fires, flood the area with large quantities of water. Use water fog (spray) to knock down vapors.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal Precautions:**

Remove all sources of ignition. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use spark-proof tools and explosion-proof equipment. All equipment used when handling the product must be grounded.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Do not let this chemical enter the environment.

Methods and material for containment and cleaning up**Methods for containment**

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE**Precautions for safe handling****Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities**Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.

Incompatible Materials:

- Nitrates
- Strong oxidizing agents
- Alkalis
- Strong acids
- Strong bases

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WHEEL
2-Ethoxyethyl Acetate	111-15-9	100 ppm TWA 540 mg/m ³ TWA	0.5 ppm TWA 2.7 mg/m ³ TWA	5 ppm TWA	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
2-Ethoxyethyl Acetate	111-15-9	5 ppm TWA 27 mg/m ³ TWA	5 ppm TWA	5 ppm TWA	5 ppm TWAEV 27 mg/m ³ TWAEV

Australia and Mexico

Components	CAS-No.	Australia	Mexico
2-Ethoxyethyl Acetate	111-15-9	5 ppm TWA 27 mg/m ³ TWA	50 ppm TWA 270 mg/m ³ TWA 100 ppm STEL 540 mg/m ³ STEL

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation, especially in confined areas. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Goggles or Safety glasses with side-shields
- Skin and body protection:** Chemical resistant apron. Gloves. Long sleeved clothing.
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: Clear.	Color: Colorless to pale yellow.
Odor: Ester-like.	Taste: Bitter. Acid.	Formula: C6H12O3
Molecular/Formula weight: 132.16 g/mol	Flammability: Flammable	Flashpoint (°C/°F): 54°C (129°F)
Flash Point Tested according to: Closed cup	Autoignition Temperature (°C/°F): 379°C (715°F)	Lower Explosion Limit (%): 1.7%
Upper Explosion Limit (%): 10%	Melting point/range(°C/°F): -61°C (-78°F)	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 156°C (313°F)	Bulk density: No information available	Density (g/cm3): 0.975
Specific gravity: No information available	pH: No information available	Vapor pressure @ 20°C (kPa): 0.267
Evaporation rate: No information available	Vapor density: 4.56	VOC content (g/L): No information available
Odor threshold (ppm): 0.6 ppm	Partition coefficient (n-octanol/water): log Kow 0.42	Viscosity: No information available
Miscibility: Miscible with olive oil Miscible with aromatic hydrocarbons	Solubility: Very soluble in Ethanol Very soluble in Ether Soluble in Water	

10. STABILITY AND REACTIVITY

Reactivity

Reactive with strong oxidizing agents
 Reacts with strong acids giving off Carbon dioxide
 Reacts with strong bases
 Reacts with nitrates

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat, flames and sparks. Ignition sources. Incompatible materials.

Incompatible Materials: Nitrates
 Strong oxidizing agents
 Alkalis
 Strong acids
 Strong bases

Hazardous decomposition products: Carbon oxides.

Other Information**Corrosivity:** No information available**Special Remarks on Corrosivity:** No information available**11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure****Principal Routes of Exposure:**

Skin. Eyes. Inhalation. Ingestion.

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	500 mg/kg
ATEmix (dermal)	1100 mg/kg
ATEmix (inhalation-gas)	4500 mg/l
ATEmix (inhalation-dust/mist)	1.5 mg/l

Component Information

2-Ethoxyethyl Acetate	
CAS-No.	111-15-9

LD50/oral/rat = 2700 mg/kg Oral LD50 Rat
LD50/oral/mouse = >3200 mg/kg oral LD50 mouse
LD50/dermal/rabbit = 10000 mg/kg Dermal LD50 Rabbit
10500 uL/kg dermal rabbit
LD50/dermal/rat = No information available
LC50/inhalation/rat = 12100 mg/m³ Inhalation (vapor) LC50 Rat 8 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = 1910 mg/kg oral LD50 guinea pig
1950 mg/kg oral LD50 rabbit
>19560 mg/kg dermal LD50 guinea pig
>2000 ppm inhalation (vapor) LD50 rabbit 4h

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 2700 mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = No information available

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = 10000 mg/kg

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = 12100 mg/m³
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Mild skin irritation.

Eye Contact: Causes eye irritation.

Inhalation Harmful by inhalation. May cause acute solvent syndrome. Inhalation of high concentrations of vapor may cause anesthetic effects. May cause central nervous system effects, central nervous system depression. It may affect the liver. May affect the kidneys.

Ingestion May be harmful if swallowed. May affect the kidneys (albuminuria, hematuria). It may cause central nervous system depression. May cause abdominal pain, nausea, vomiting, diarrhea. May cause central nervous system effects similar to those of inhalation.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Repeated and prolonged exposure to solvents may cause brain and nervous system damage. Chronic exposure may affect the liver, kidneys, and blood. Chronic exposure may cause central nervous system effects.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
2-Ethoxyethyl Acetate	111-15-9	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity May damage fertility or the unborn child

Reproductive Effects: May cause adverse reproductive effects based on animal data
Category 2: Substances which should be regarded as if they impair fertility in humans

May decrease fertility in males and females

May cause harm to the unborn child

Developmental Effects: May cause adverse developmental effects based on animal data

May cause developmental abnormalities

Teratogenic Effects: May cause birth defects (teratogenic effects) based on animal test data

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Product code: E1024

Product name: 2-ETHOXYETHYL ACETATE, REAGENT

Target Organs: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

2-Ethoxyethyl Acetate - 111-15-9

Freshwater Fish Species Data: 45 - 52 mg/L LC50 *Lepomis macrochirus* 96 h static 1
41 mg/L LC50 *Lepomis macrochirus* 96 h flow-through 1
42.2 mg/L LC50 *Pimephales promelas* 96 h flow-through 1

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal. Do not re-use empty containers
Dispose of as unused product.

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
2-Ethoxyethyl Acetate	111-15-9	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN1172
Proper Shipping Name: Ethylene glycol monoethyl ether acetate
Hazard Class: 3
Subsidiary Class: No information available
Packing group: III
Emergency Response Guide Number: 129
Marine Pollutant: No data available
DOT RQ (lbs): No information available
Special Provisions: B1, IB3, T2, TP1
Symbol(s): No information available
Description: UN1172, Ethylene glycol monoethyl ether acetate, 3, III

TDG (Canada)

UN-No: UN1172
Proper Shipping Name: Ethylene glycol monoethyl ether acetate
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III

Product code: E1024

Product name: 2-ETHOXYETHYL
ACETATE, REAGENT

9 / 13

Marine Pollutant Description: No Information available
UN1172, Ethylene glycol monoethyl ether acetate, 3, III

ADR

UN-No: UN1172
Proper Shipping Name: Ethylene glycol monoethyl ether acetate
Hazard Class: 3
Packing Group: III
Subsidiary Risk: No information available
Description: UN1172, Ethylene glycol monoethyl ether acetate, 3, III

IMO / IMDG

UN-No: UN1172
Proper Shipping Name: Ethylene glycol monoethyl ether acetate
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant No information available
EMS: F-E
Description UN1172, Ethylene glycol monoethyl ether acetate, 3, III

RID

UN-No: UN1172
Proper Shipping Name: Ethylene glycol monoethyl ether acetate
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Description: UN1172, Ethylene glycol monoethyl ether acetate, 3, III

ICAO

UN-No: UN1172
Proper Shipping Name: Ethylene glycol monoethyl ether acetate
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
Description: UN1172, Ethylene glycol monoethyl ether acetate, 3, III

IATA

UN-No: UN1172
Proper Shipping Name: Ethylene glycol monoethyl ether acetate
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: III
ERG Code: 3L
Special Provisions No information available
Description: UN1172, Ethylene glycol monoethyl ether acetate, 3, III

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
2-Ethoxyethyl Acetate	111-15-9	Present S	Present KE-13668	Present	Present (2)-740	Present	Present	Present 203-839-2

U.S. Regulations

2-Ethoxyethyl Acetate

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0840
 3138
New Jersey (EHS) List: 3138 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental Hazard
Pennsylvania RTK - Environmental Hazard List Present
Minnesota - Hazardous Substance List: Present (skin)
Louisiana Reportable Quantity List for Pollutants: 100 lb RQ
 5000 lb RQ
California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

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

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
2-Ethoxyethyl Acetate	111-15-9	Not Listed	developmental toxicity	male reproductive toxicity	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>2-Ethoxyethyl Acetate</i>	111-15-9	None	None	None	None	1.0% de minimis concentration

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
2-Ethoxyethyl Acetate	111-15-9	40 CFR 721.10001	Not Applicable

Canada

WHMIS hazard class:

B3 Combustible liquid
 D2A Very toxic materials

Components

2-Ethoxyethyl Acetate

WHIMHAZ

B3 D2A

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
2-Ethoxyethyl Acetate	0.1 %

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
2-Ethoxyethyl Acetate	111-15-9	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances

2-Ethoxyethyl Acetate	111-15-9	Present
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
2-Ethoxyethyl Acetate	111-15-9	Not listed

EU Classification

R-phrase(s)

R10 - Flammable.

R60 - May impair fertility.

R61 - May cause harm to the unborn child.

R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.

S -phrase(s)

S25 - Avoid contact with eyes.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S53 - Avoid exposure - obtain special instructions before use.

S 1/2 - Keep locked up and out of the reach of children.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
2-Ethoxyethyl Acetate	111-15-9	R10 Xn; R20/21/22 Repr.Cat.2; R60-61	No information	S53 S45

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

Flammable

Xn - Harmful.

Xi - Irritant.

Xn



Xi



16. OTHER INFORMATION

Preparation Date: 8/28/2015
Revision Date: 10/25/2016
Prepared by: Roumann Pangilinan

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the

completeness or accuracy of the information contained herein.

End of Safety Data Sheet