

Material Safety Data Sheet

1. PRODUCT AND COMPANY INFORMATION

- A) Product Name : SR-100
- B) Recommended use of the chemical and restrictions on use : Solvent
- C) Manufacturer/Supplier/Distributor Information
- Name : Sungrim Industrial Co., Ltd.
 - Address : 45, Maebawi-ro 237 beon-gil, ujeong-eup, Hwaseong-si, Gyeonggi-do, Korea.
 - Emergency phone number : +28 - 31 - 373 - 5771

2. HAZARD(S) IDENTIFICATION

- A) Hazard Classification :
- Eye Damage/Irritation [Category 2B]
 - Specific Target Organ Toxicity (Single Exposure) [Category 3]
 - Flammable Liquids [Category 3]

B) Signal word : Danger!

C) Pictogram(s) or Symbol(s):



D) Precautionary Statement(s):

Prevent

Keep away from heat, sparks, open flames and hot surfaces. – No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist, vapors or spray. Use only outdoors or in a well-ventilated area. Wash hands and face thoroughly after handling. Wear protective gloves, eye protection.

Response

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. 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 or attention. In case of fire: Use dry chemical, dry sand or foam to extinguish.

Storage

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

Disposal

Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40 CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

E) Hazards not otherwise classified[HNOOC]

Causes mild skin irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Other name	CAS number	Content (%)
Propylene Glycol 1-Monomethyl Ether 2-Acetate	1,2-Propanediol 1-Monomethyl Ether 2-Acetate	108-65-6	10~40
Ethyl L-(-)-Lactate	L-(-)-Lactic Acid Ethyl Ester	687-47-8	MAX.20%
Ethyl 3-Ethoxypropionate	3-Ethoxypropionic Acid Ethyl Ester	763-69-9	25~55
Methyl 2-Hydroxyisobutyrate	2-Hydroxyisobutyric Acid Methyl Ester	2110-78-3	10~30
1-Methoxy-2-propanol	1,2-Propylene Glycol 1-Monomethyl Ether	107-98-2	MAX. 1%
Methyl isobutyl ketone	4-Methyl-2-pentanone	108-10-1	MAX. 1%

4. FIRST-AID MEASURES

Description of first aid measures

- INHALATION :** Remove to fresh air. Keep warm and in a quiet place. respiration if needed
If unconscious and vomiting, lay victim with head to one side to enable breathing.
- INGESTION :** Get medical advice/attention if you feel unwell. Rinse mouth.
- SKIN CONTACT :** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. of the apperarence of the exposed skin has changed or pain persists, medical treatment should be arranged.
- EYE CONTACT :** Rinse immediately with water, flush for 15 min. Contact a Physician.
- Protection of first-aiders:** A rescuer should wear personal protective equipment. such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURE

- Suitable extinguishing media:** Dry chemical, foam, carbon dioxide.
- Unsuitable extinguishing media:** Water (It may scatter and spread fire.)
- Hazardous combustion products:** These products include: Carbon oxides
- Other specific hazards:** Closed containers may explode from heat of a fire.
- Advice for firefighters:** Wear self-contained breathing apparatus if possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions:	Prevent product from entering drains.
Methods and materials for containment and cleaning up:	Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
Prevention of secondary hazards:	Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

7. HANDLING AND STORAGE

Precautions for safe handling:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid contact with skin, eyes and clothing.
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Conditions for safe storage, including any incompatibilities

Storage conditions:	Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up. Store away from incompatible materials such as oxidizing agents.
Packaging material:	Comply with laws.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls:	Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed system or local exhaust. Also install safety shower and eye bath.
Personal protective equipment	
Respiratory protection:	Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
Hand protection:	Impervious gloves.
Eye protection:	Safety goggles. A face-shield, if the situation requires.
Skin and body protection:	Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State (20°C)

Form :	Liquid
Appearance :	Clear
Color :	Colorless
Odor :	Fruity, ester-like

pH : 5.7

Information on changes in the physical state

Boiling Point/Range :	100 ~ 180°C
Melting Point :	No data available
Flash Point :	No data available
Autoignition Temperature :	No data available

Explosive Properties

Explosive Lower :	No data available
Explosive Upper :	No data available
Vapor Pressure :	No data available

Density : 0.95 ± 0.05

Solubility : Slightly soluble in : Water

10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical stability:	Stable under proper conditions.
Possibility of hazardous reactions:	No special reactivity has been reported.
Conditions to avoid:	Spark, Open flame, Static discharge
Incompatible materials:	Oxidizing agents, Strong acids, Strong bases
Hazardous decomposition products:	Carbon dioxide, Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Acute toxicity :	No data available
ORAL :	No data available
DERMAL :	No data available
INHALATION :	No data available

Local effects : No data available

Teratogenic effects : No data available

12. ECOLOGICAL INFORMATION

Mobility : No information available.

Persistence / degradability : No information available.

Bioaccumulation : No information available.

13. DISPOSAL CONSIDERATIONS

Wear appropriate personal protective clothing.

In accordance with local and national regulations If the substance is burned for disposal. It should be burned in a furnace equipped with an after- burner and a scrubber.

Empty the contents thoroughly before disposing of a container.

If the substance is difficult to be disposed of. (e.g. by reason that there is no waste disposal facility), it should be committed to an authorized industrial waste processing agent.

14. TRANSPORT INFORMATION

UN Number : 1993

UN Shipping name : Flammable liquid, n.o.s.

Transport hazard class: 3

Packing group: III

Specific precautionary When transporting the product, confirm that there is no leakage from the vessel.

Transport measures and Then. load it securely with collapse prevention lest it should tumble, Fall, or be

Conditions : damaged. Take actions in accordance with the Fire Service Law. etc.

15. REGULATORY INFORMATION

A) Safety, health and environmental regulations specific for the product in question

1) USA

- OSHA (29CFR1910.119) : Not Listed
- CERCLA 103 (40CFR302.4) : Not Listed
- SARA 302 (40CFR355.30) : Not Listed
- SARA 304 (40CFR355.40) : Not Listed
- SARA 313 (40CFR372.65) : Not Listed

2) EU

- EU Classification

Propylene Glycol 1-Monomethyl Ether 2-Acetate : R10Xi; R10

Ethyl L-(-)-Lactate : R10Xi; R37-41

16. OTHER INFORMATION

A) Information source and reference :

- Korea Occupational Safety and Health Agency
- Globally Harmonized System of classification and labeling of chemicals(GHS), First revised edition, United Nations.
- EINECS (European Inventory of Existing Commercial chemical Substances)
- IARC (International Agency for Research on Cancer)

B) Issuing date : 03/11/2015

C) Revision number and date: 01

Final revision date : 25/01/2019

D) Others :

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed.