

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), 29CFR1910/1200 and GHS Rev. 3

Effective date: 03.11.2016

Super Sap INS Hardener

1 Identification of the substance/mixture and of the company/undertaking



1.1 Product identifier

Material Name: Super Sap INS Hardener
Trade Name: Super Sap Infusion Slow Hardener
Product code: 12_INF

1.2 Relevant identified uses of the substance or mixture and uses advised against: Liquid curing agent for epoxy resin

1.3 Details of the manufacturer/supplier of the safety data sheet

Manufacturer:	Supplier:
Entropy Resins, Inc.	(Europe / Africa / Middle East)
30621 San Antonio St.	Ferrer-Dalmau
Hayward, CA 94544 USA	Rosalia de Castro 21
1-310-882-2120	08025 Barcelona, Spain
info@entropyresins.com	+34 93 487 40 15
	info@entropyresins.eu

Emergency telephone number:

3E Company

Inside USA: 1-760-476-3962
 International / not specified: 1-760-476-3962

National Chemical Emergency Helpline

Inside China: +86-0532-8388-9090

2 Hazards identification

2.1 Classification of the substance or mixture:

In compliance with EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments.

Acute toxicity (oral), category 4.
 Acute toxicity (dermal), category 4.
 Skin corrosion, category 1A.
 Serious eye damage, category 1.
 Skin sensitization, category 1.
 Acute aquatic hazard, category 3.
 Chronic aquatic hazard, category 3.
 Specific target organ toxicity - single exposure, category 3, respiratory irritation.

Hazard-determining components of labeling:

Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether
 Isophorone diamine
 1-Piperazineethanamine

2.2 Label elements

Hazard pictograms:

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Signal word: Danger

Hazard statements:

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H402 Harmful to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
- P302+P352+P312 If on skin: Wash with soap and water. Call a poison center or doctor/physician if you feel unwell.
- P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
- P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
- P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P403+P233 Store in a well ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P501 Dispose of contents and container as instructed in Section 13.

2.3 Other hazards: None known

Information concerning particular hazards for humans and environment:

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments, and extended by company and literature data. The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

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3 Composition/information on ingredients

3.1 Chemical characterization: Mixture.

3.2 Description: None

3.3 Hazardous components (percentages by weight)

Identification	Name	Classification	Wt. %
CAS number: 39423-51-3	Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether	Acute Tox. 4; H302 Acute Tox. 4; H312 Eye Dam. 1; H318 Aquatic Acute 2; H401 Aquatic Chronic 2; H411	10-30
CAS number: 2855-13-2	Isophorone diamine	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Sens. 1; H317 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	50-90
CAS number: 140-31-8	1-Piperazineethanamine	Acute Tox. 3; H311 Skin Sens. 1; H317 Skin Corr. 1B; H314 Aquatic Chronic 3; H412	0.1-3

3.4 Additional information: None.

4 First aid measures

4.1 Description of first aid measures

General information: None.

After inhalation:

- Move exposed individual to fresh air.
- Loosen clothing as necessary and position individual in a comfortable position.
- Maintain an unobstructed airway.
- Immediately call a POISON CONTROL CENTER or seek medical attention.

After skin contact:

- Immediately remove all contaminated clothing.
- Wash affected area with soap and water.
- Immediately call a POISON CONTROL CENTER or seek medical attention.

After eye contact:

- Rinse/flush exposed eye(s) gently using water for 15-20 minutes.
- Remove contact lens(es) if able to do so during rinsing.
- Immediately call a POISON CONTROL CENTER or seek medical attention.

After swallowing:

- Immediately call a POISON CONTROL CENTER or seek medical attention.
- Do not induce vomiting.
- Rinse mouth and then drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed:

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None

4.3 Indication of any immediate medical attention and special treatment needed:

No additional information.

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

Unsuitable extinguishing media: None

5.2 Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Advice for firefighters

Protective equipment:

Wear protective eye wear, gloves and clothing.

Refer to Section 8.

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit.

5.4 Additional information:

Heating causes a rise in pressure, risk of bursting and combustion.

Shut off sources of ignition.

Carbon monoxide and carbon dioxide may form upon combustion.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.

Ensure air handling systems are operational.

Wear protective eye wear, gloves and clothing.

6.2 Environmental precautions:

Should not be released into the environment.

Prevent from reaching drains, sewer or waterway.

6.3 Methods and material for containment and cleaning up:

Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay) , acid binders, universal binders).

Dispose of contents / container in accordance with local regulations.

6.4 Reference to other sections: None

7 Handling and storage

7.1 Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.

Avoid breathing mist or vapor.

Use only with adequate ventilation.

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7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.
Store away from foodstuffs.

7.3 Specific end use(s):

No additional information.

8 Exposure controls/personal protection



8.1 Control parameters:

8.2 Exposure controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

Protection of skin:

Select glove material impermeable and resistant to the substance.

Eye protection:

Safety goggles or glasses, or appropriate eye protection.

General hygienic measures:

Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes and clothing.
Perform routine housekeeping.
Wash contaminated clothing before reusing.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance (physical state, color):	Clear liquid	Explosion limit lower: Explosion limit upper:	Not determined or not available. Not determined or not available.
Odor:	Odorless	Vapor pressure:	Not determined or not available.
Odor threshold:	Not determined or not available.	Vapor density:	Not determined or not available.
pH-value:	>12.3	Relative density:	Not determined or not available.

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Melting/Freezing point:	Not determined or not available.	Solubilities:	Soluble in water.
Boiling point/range:	>247°F	Partition coefficient (n-octanol/water):	Not determined or not available.
Flash point (closed cup):	90-113°C	Auto/Self-ignition temperature:	Not determined or not available.
Evaporation rate:	Not determined or not available.	Decomposition temperature:	Not determined or not available.
Flammability (solid, gaseous):	Not determined or not available.	Dynamic viscosity:	Not determined or not available.
Density:	Not determined or not available.	Kinematic viscosity:	Not determined or not available.

10 Stability and reactivity

- 10.1 Reactivity:** Does not react under normal conditions of use and storage.
- 10.2 Chemical stability:** Stable under normal conditions of use and storage.
- 10.3 Possibility of hazardous reactions:** None under normal conditions of use and storage.
- 10.4 Conditions to avoid:** None known.
- 10.5 Incompatible materials:** None known.
- 10.6 Hazardous decomposition products:** None known.

11 Toxicological information

11.1 Information on toxicological effects:

Routes of exposure: No information available.

Acute toxicity:

Oral:

Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether: LD50 - Rat - 550 mg/kg.

1-Piperazineethanamine: LD50 Oral - rat - male - 2,097 mg/kg.

Isophorone diamine: LD50: rat male 1,030 mg/kg.

Dermal:

1-Piperazineethanamine: LD50 Dermal - rabbit - male - 866 mg/kg.

Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether: LD50 - Rat - > 1,000 mg/kg.

Isophorone diamine: LD50: rat >2,000 mg/kg.

Inhalation:

Isophorone diamine: LC50: Rat 4h >5.01 mg/l.

Skin corrosion/irritation:

Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether: Skin - Rabbit - Result: Mild skin irritation - 4 hrs (OECD Test Guideline 404).

Isophorone diamine: Rabbit: causes burns 24 h.

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Serious eye damage/irritation:

Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether: Eyes - In vitro study - Result: Risk of serious damage to eyes (OECD Test Guideline 405).

Isophorone diamine: Rabbit: corrosive to eyes 24h.

Respiratory or skin sensitization: No additional information.

Carcinogenicity: No additional information.

IARC (International Agency for Research on Cancer):

Group 3 - Not classifiable as to its carcinogenicity to humans: Triethanolamine.

NTP (National Toxicology Program): None of the ingredients are listed.

Germ cell mutagenicity: No additional information.

Reproductive Toxicity: No additional information.

STOT-single and repeated exposure: No additional information.

Aspiration toxicity: No information available.

Additional toxicological information: No additional information.

12 Ecological information

12.1 Toxicity:

Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether: Fish, LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l - 96 h (OECD Test Guideline 203).

Isophorone diamine: Bacteria, EC10 - Pseudomonas putida - 1,120 mg/l - 18 h.

1-Piperazineethanamine: Fish, static test LC50 - Pimephales promelas (fathead minnow) - ca. 2,190 mg/l - 96 h.

1-Piperazineethanamine: Aquatic invertebrates, static test EC50 - Daphnia magna (Water flea) - 58 mg/l - 48 h.

Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether: Aquatic invertebrates, EC50 - Daphnia magna (Water flea) - 13 mg/l - 48 h (OECD Test Guideline 202).

Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether: Aquatic Plants, EC50 - Pseudokirchneriella subcapitata - 4.4 mg/l - 72 h (OECD Test Guideline 201).

Trimethylolpropane tris[poly(propylene glycol), amine terminated] ether: Bacteria, EC50 - Sludge Treatment - ca. 1,000 mg/l - 30 min (OECD Test Guideline 209).

Isophorone diamine: Fish, semi-static test LC50 - Leuciscus idus (Golden orfe) - 110 mg/l - 96.0 h.

Isophorone diamine: Aquatic invertebrates, Immobilization EC50 - Daphnia magna (Water flea) - 23 mg/l - 48 h.

Isophorone diamine: Aquatic Plants, static test EC50 - Desmodesmus subspicatus (green algae) - 37 mg/l - 72 h.

12.2 Persistence and degradability: No additional information.

12.3 Bioaccumulative potential: No additional information.

12.4 Mobility in soil: No additional information.

General notes: No additional information.

12.5 Results of PBT and vPvB assessment:

PBT: No additional information.

vPvB: No additional information.

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12.6 Other adverse effects: No additional information.

13 Disposal considerations

13.1 Waste treatment methods


Relevant information:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities. (US 40CFR262.11).


14 Transport information

Land transport:

DOT (49 CFR) transport

14.1 UN Number:	2735
14.2 UN Proper shipping name:	Amines, liquid, corrosive, n.o.s. (Isophorone diamine)
14.3 UN Transport hazard classes:	8
14.4 Packing group: Danger label:	III 8 Corrosive substances 
14.5 Environmental hazards:	Yes
14.6 Special precautions for user:	None
Limited quantity:	5L

ADR/RID

14.1 UN Number:	2735
14.2 UN Proper shipping name:	Amines, liquid, corrosive, n.o.s. (Isophorone diamine)
14.3 UN Transport hazard classes:	8
14.4 Packing group: Danger label:	III 8 Corrosive substances 
Tunnel restriction code: Transport category: Hazard ID number:	E 3 80
14.5 Environmental hazards:	Yes
14.6 Special precautions for user:	

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None

Limited quantity:

5L - Pkg Inst.: P001 IBC03 LP01 R001

Quantity exception:

E1

Air transport:

IATA-DGR

14.1 UN Number:	2735
14.2 UN Proper shipping name:	Amines, liquid, corrosive, n.o.s. (Isophorone diamine)
14.3 UN Transport hazard classes:	8
14.4 Packing group: Danger label:	III 8 Corrosive substances The image shows two GHS hazard pictograms side-by-side. The one on the left is a black diamond with a white border, containing a white liquid dripping from a test tube onto a surface, with the number '8' below it. The one on the right is a red diamond with a white border, containing a black silhouette of a dead tree and a fish, with the number '8' below it.
14.5 Environmental hazards:	Yes
14.6 Special precautions for user:	None Limited quantity: 1L (Passenger and cargo aircraft) - Pkg Inst.: Y841 Quantity exception: E1

Sea transport:

IMDG

14.1 UN Number:	2735
14.2 UN Proper shipping name:	Amines, liquid, corrosive, n.o.s. (Isophorone diamine)
14.3 UN Transport hazard classes:	8
14.4 Packing group: Danger label: EMS code:	III 8 Corrosive substances F-A, S-B The image shows two GHS hazard pictograms side-by-side. The one on the left is a black diamond with a white border, containing a white liquid dripping from a test tube onto a surface, with the number '8' below it. The one on the right is a red diamond with a white border, containing a black silhouette of a dead tree and a fish, with the number '8' below it.
14.5 Environmental hazards:	Yes
14.6 Special precautions for user:	None Limited quantity:

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5L - Pkg Inst.: P001 LP01
Quantity exception:
 E1

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.

North American

SARA Section 311/312 (Specific toxic chemical listings): Not classified.

SARA Section 302 (Extremely hazardous substances): None of the ingredients are listed.

SARA Section 313 (Specific toxic chemical listings): None of the ingredients are listed.

TSCA (Toxic Substances Control Act): All ingredients are listed.

TSCA Rules and Orders: Not applicable.

Proposition 65 (California):

Chemicals known to cause cancer: None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients are listed.

Chemicals known to cause developmental toxicity: None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL): All ingredients are listed.

European Union

REACH Article 57 (SVHC): None of the ingredients are listed.

Germany MAK: Not classified.

Australia

Australian Inventory of Chemical Substances (AICS): All ingredients are listed.

China

Inventory of Existing Chemical Substances in China (IECSC):

All ingredients are listed.

Japan

Inventory of Existing and New Chemical Substances (ENCS): All ingredients are listed.

Korea

Existing Chemicals List (ECL): All ingredients are listed.

New Zealand

New Zealand Inventory of Chemicals (NZOIC): All ingredients are listed.

Philippines

Philippine Inventory of Chemicals and Chemical Substances (PICCS): All ingredients are listed.

Taiwan

Taiwan Chemical Substance Inventory (TSCI): All ingredients are listed.

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16 Other information

Abbreviations and Acronyms: None

Summary of classification in section 3:

Acute Tox. 4; H302	Acute toxicity (oral), category 4
Acute Tox. 4; H312	Acute toxicity (dermal), category 4
Eye Dam. 1; H318	Serious eye damage, category 1
Aquatic Acute 2; H401	Acute aquatic hazard, category 2
Aquatic Chronic 2; H411	Chronic aquatic hazard, category 2
Skin Sens. 1; H317	Skin sensitization, category 1
Skin Corr. 1B; H314	Skin corrosion, category 1B
Aquatic Chronic 3; H412	Chronic aquatic hazard, category 3
Acute Tox. 3; H311	Acute toxicity (dermal), category 3

Summary of hazard statements in section 3:

H302	May be harmful if swallowed
H312	May be harmful in contact with skin
H318	Causes serious eye damage
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
H317	May cause an allergic skin reaction
H314	Causes severe skin burns and eye damage
H412	Harmful to aquatic life with long lasting effects
H311	Harmful in contact with skin

Manufacturer Statement:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 3-1-0

HMIS: 3-1-0