

# Safety Data Sheet

Material Name: Super Sap CLS Hardener

## \*\*\* Section 1 - Product and Company Identification \*\*\*

### Manufacturer Information

Entropy Resins, Inc.  
30621 San Antonio St.  
Hayward, CA 94544  
USA

Phone: +1-310-882-2582

Emergency # +1-760-476-3962 Global Response Contract:  
333178

Hijos De A. Ferrer-Dalmau  
C/ Rosalia de Castro 21  
08025 Barcelona  
Spain

## \*\*\* Section 2 - Hazards Identification \*\*\*

### GHS Classification:

Skin Corrosion - Category 1B  
Serious Eye Damage - Category 1  
Skin Sensitization - Category 1  
Reproductive Toxicity - Category 2  
Hazardous to the Aquatic Environment - Acute Category 1  
Hazardous to the Aquatic Environment - Chronic Category 3

### GHS LABEL ELEMENTS

#### Symbol(s)



#### Signal Word

Danger

#### Hazard Statements

Causes severe skin burns and eye damage.  
Causes serious eye damage.  
May cause an allergic skin reaction.  
Suspected of damaging fertility.  
Very toxic to aquatic life.  
Harmful to aquatic life with long lasting effects.

#### Precautionary Statements

##### Prevention

Do not breathe dusts or mists.  
Wash thoroughly after handling.  
Wear protective glove/protective/clothing/eye protection/face protection.  
Contaminated work clothing should not be allowed out of the workplace.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.

# Safety Data Sheet

**Material Name: Super Sap CLS Hardener**

Avoid release to the environment.

## Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

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.

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.

IF exposed or concerned: Get medical advice/attention.

Collect spillage.

## Storage

Store locked up.

## Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

### \* \* \* Section 3 - Composition / Information on Ingredients \* \* \*

CAS #	Component	Percent
102-71-6	Triethanolamine	5-10
9046-10-0	Propylene glycol diamine, 2-amino-, diether with Propylene	5-10
100-51-6	Benzyl alcohol	2-10
1477-55-0	m-Xylene- $\alpha,\alpha'$ -diamine	2-10
2855-13-2	Isophorone diamine	2-10
110-85-0	Piperazine	<5
140-31-8	1-(2-Aminoethyl) piperazine	<2
103-83-3	Benzyl dimethylamine	<2
25154-52-3	Nonylphenols	<2

### \* \* \* Section 4 - First Aid Measures \* \* \*

#### First Aid: Eyes

For eye contact, immediately flush eyes for at least 15 minutes with running water. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. If physician is not available, flush for an additional 15 minutes. Seek immediate medical attention.

#### First Aid: Skin

For skin contact, under a safety shower, immediately remove contaminated clothing and shoes. Wash affected areas thoroughly with large amounts of water, and soap if available, for at least 15 minutes. Seek immediate medical attention. Discard or decontaminate clothing before re-use and destroy contaminated shoes.

#### First Aid: Ingestion

If swallowed, immediately give at least 3-4 glasses of water, but do not induce vomiting. If vomiting occurs, give fluids again. Do not give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

# Safety Data Sheet

Material Name: Super Sap CLS Hardener

## First Aid: Inhalation

Remove to fresh air.

## \* \* \* Section 5 - Fire Fighting Measures \* \* \*

### General Fire Hazards

See Section 9 for Flammability Properties.

None

### Hazardous Combustion Products

Decomposition and combustion products may be toxic.

### Extinguishing Media

Dry chemical powder, carbon dioxide foam, water spray or fog, sand or earth.

### Unsuitable Extinguishing Media

None

### Fire Fighting Equipment/Instructions

Firefighters should wear full protective clothing and self-contained breathing apparatus.

## \* \* \* Section 6 - Accidental Release Measures \* \* \*

### Recovery and Neutralization

Stop the flow of material, if this is without risk.

### Materials and Methods for Clean-Up

Absorb or contain liquid with sand, earth or other absorbent spill control material. Shovel material to labeled sealable container for safe disposal. Do not use sawdust, wood chips or other cellulosic materials to absorb the spill, as the possibility for spontaneous combustion exists. Wash spill residue with warm, soapy water if necessary.

### Emergency Measures

Isolate area. Keep unnecessary personnel away.

### Personal Precautions and Protective Equipment

Wear protective clothing specified for normal operations.

### Environmental Precautions

Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers. If material enters drains it should be pumped out into an open vessel.

Emergency services may need to be called to assist in this operation.

### Prevention of Secondary Hazards

None

## \* \* \* Section 7 - Handling and Storage \* \* \*

### Handling Procedures

Avoid contact with skin, eyes and clothing

### Storage Procedures

Keep container tightly closed and dry to prevent moisture absorption and contamination.

### Incompatibilities

Strong oxidizing agents, bases, and acids. Caustic soda.

# Safety Data Sheet

Material Name: Super Sap CLS Hardener

## \*\*\* Section 8 - Exposure Controls / Personal Protection \*\*\*

### Component Exposure Limits

#### Triethanolamine (203-049-8)

ACGIH: 5 mg/m3 TWA  
Austria: 1.6 ppm STEL [KZW] (4 X 15 min); 10 mg/m3 STEL [KZW] (inhalable fraction, 4 X 15 min)  
0.8 ppm TWA [TMW]; 5 mg/m3 TWA [TMW] (inhalable fraction)  
Sensitizer  
Belgium: 5 mg/m3 TWA  
Denmark: 0.5 ppm TWA; 3.1 mg/m3 TWA  
Finland: 5 mg/m3 TWA  
Germany: 5 mg/m3 TWA MAK (inhalable fraction)  
20 mg/m3 Peak  
Ireland: 5 mg/m3 TWA  
Portugal: 5 mg/m3 TWA [VLE-MP]  
Spain: 5 mg/m3 TWA [VLA-ED]  
Sweden: 5 mg/m3 LLV  
10 mg/m3 STV

#### m-Xylene- $\alpha,\alpha'$ -diamine (216-032-5)

ACGIH: 0.1 mg/m3 Ceiling  
Skin - potential significant contribution to overall exposure by the cutaneous route  
Austria: 0.1 mg/m3 STEL [KZW]  
0.1 mg/m3 TWA [TMW]  
Belgium: Skin  
Denmark: 0.02 ppm Ceiling; 0.1 mg/m3 Ceiling  
Potential for cutaneous absorption  
Finland: 0.1 mg/m3 STEL  
0.1 mg/m3 Ceiling  
Potential for cutaneous absorption  
France: 0.1 mg/m3 STEL [VLCT]

#### Benzyl alcohol (202-859-9)

Finland: 10 ppm TWA; 45 mg/m3 TWA

# Safety Data Sheet

**Material Name: Super Sap CLS Hardener**

## **Piperazine (203-808-3)**

ACGIH:	0.03 ppm TWA (inhalable fraction and vapor) Sensitizer
Austria:	0.3 mg/m3 STEL [KZW] (4 X 15 min) 0.1 mg/m3 TWA [TMW] (reaction with nitrosating agents can lead to formation of carcinogens N-N'-Dinitrosopiperazine)
Belgium:	0.3 mg/m3 STEL 0.1 mg/m3 TWA
Denmark:	0.003 ppm TWA; 0.1 mg/m3 TWA
Finland:	0.084 ppm STEL; 0.3 mg/m3 STEL 0.028 ppm TWA; 0.1 mg/m3 TWA
France:	0.3 mg/m3 STEL [VLCT] (indicative limit, powder and vapor) 0.1 mg/m3 TWA [VME] (indicative limit, dust and vapor)
Germany:	0.1 mg/m3 TWA AGW (exposure factor 1)
Greece:	0.3 mg/m3 STEL (dust or vapor) 0.1 mg/m3 TWA (dust or vapor)
Ireland:	0.3 mg/m3 STEL 0.1 mg/m3 TWA Sensitizer
Italy:	0.1 mg/m3 TWA (dust and vapor)
Netherlands:	0.3 mg/m3 STEL 0.1 mg/m3 TWA
Spain:	0.3 mg/m3 STEL [VLA-EC] 0.1 mg/m3 TWA [VLA-ED] (indicative limit value; reaction with Nitrosating agents can lead to formation of carcinogenic N-Nitrosamines) sensitizer
Sweden:	0.1 ppm LLV; 0.3 mg/m3 LLV 0.3 ppm STV; 1 mg/m3 STV

## **Engineering Measures**

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

## **Personal Protective Equipment: Respiratory**

If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

## **Personal Protective Equipment: Hands**

Wear impervious nitrile rubber gloves or butyl rubber gloves, gauntlet type.

## **Personal Protective Equipment: Eyes**

Monogoggles.

## **Personal Protective Equipment: Skin and Body**

Standard issue work clothes, safety boots.

# Safety Data Sheet

Material Name: Super Sap CLS Hardener

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

<b>Appearance:</b>	Clear to Yellow	<b>Odor:</b>	Amine
<b>Physical State:</b>	Liquid	<b>pH:</b>	ND
<b>Vapor Pressure:</b>	0.1 Pa at 20 C (68 F)	<b>Vapor Density:</b>	ND
<b>Boiling Point:</b>	>200	<b>Melting Point:</b>	ND
<b>Solubility (H2O):</b>	Negligible	<b>Specific Gravity:</b>	.97 - 1.2 g/m3@ 20 C (68 F)
<b>Evaporation Rate:</b>	<1	<b>VOC:</b>	ND
<b>Octanol/H2O Coeff.:</b>	ND	<b>Flash Point:</b>	>100 C
<b>Flash Point Method:</b>	ND	<b>Upper Flammability Limit (UFL):</b>	ND
<b>Lower Flammability Limit (LFL):</b>	ND	<b>Burning Rate:</b>	ND
<b>Auto Ignition:</b>	ND		

## \*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*

### Chemical Stability

Stable under normal use conditions.

### Hazardous Reaction Potential

Will not occur.

### Conditions to Avoid

None

### Incompatible Products

Reacts with strong oxidizing agents, bases, and acids. Polymerizes exothermically with amines, mercaptans and Lewis acids at ambient temperature and above. Polymerizes in contact with bases (e.g. caustic soda), ammonia, primary and secondary amines, alcohols and acids.

### Hazardous Decomposition Products

Carbon monoxide, carbon dioxide, aldehydes, nitrogen oxides.

## \*\*\* Section 11 - Toxicological Information \*\*\*

### Acute Toxicity

#### Component Analysis - LD50/LC50

##### Triethanolamine (102-71-6)

Oral LD50 Rat 4190 mg/kg; Dermal LD50 Rabbit >2000 mg/kg; Dermal LD50 Rat >16 mL/kg

##### Propylene glycol diamine, 2-amino-, diether with Propylene (9046-10-0)

Oral LD50 Rat 242 mg/kg; Dermal LD50 Rabbit 360 mg/kg

##### m-Xylene- $\alpha,\alpha'$ -diamine (1477-55-0)

Inhalation LC50 Rat 700 ppm 1 h; Oral LD50 Rat 930 mg/kg; Dermal LD50 Rabbit 2000 mg/kg

##### Isophorone diamine (2855-13-2)

Oral LD50 Rat 1030 mg/kg

# Safety Data Sheet

**Material Name: Super Sap CLS Hardener**

**Benzyl alcohol (100-51-6)**

Inhalation LC50 Rat 8.8 mg/L 4 h; Oral LD50 Rat 1230 mg/kg; Dermal LD50 Rabbit 2000 mg/kg

**Piperazine (110-85-0)**

Oral LD50 Rat 1900 mg/kg; Dermal LD50 Rabbit 4000 mg/kg

**Nonylphenols (25154-52-3)**

Oral LD50 Rat 580 mg/kg; Dermal LD50 Rabbit 2031 mg/kg

**1-(2-Aminoethyl) piperazine (140-31-8)**

Oral LD50 Rat 2140 mg/kg; Dermal LD50 Rabbit 880 mg/kg

**Benzyl dimethylamine (103-83-3)**

Oral LD50 Rat 265 mg/kg; Dermal LD50 Rabbit 1660 mg/kg

**Potential Health Effects: Skin Corrosion Property/Stimulativeness**

Causes severe skin burns.

**Potential Health Effects: Eye Critical Damage/ Stimulativeness**

Causes eye damage.

**Potential Health Effects: Ingestion**

Harmful if swallowed.

**Potential Health Effects: Inhalation**

Causes severe irritation if inhaled.

**Respiratory Organs Sensitization/Skin Sensitization**

May cause an allergic skin and respiratory reaction.

**Generative Cell Mutagenicity**

This product is not reported to have any mutagenic effects.

**Carcinogenicity**

**A: General Product Information**

This product is not reported to have any carcinogenic effects.

**B: Component Carcinogenicity**

**Triethanolamine (102-71-6)**

IARC: Monograph 77 [2000] (Group 3 (not classifiable))

**Piperazine (110-85-0)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

**Reproductive Toxicity**

Suspected of damaging fertility.

**Specified Target Organ General Toxicity: Single Exposure**

This product is not reported to have any single exposure specific target organ toxicity effects.

**Specified Target Organ General Toxicity: Repeated Exposure**

This product is not reported to have any repeat exposure specific target organ toxicity effects.

# Safety Data Sheet

Material Name: Super Sap CLS Hardener

## Aspiration Respiratory Organs Hazard

This product is not reported to have any aspiration hazard effects.

### \*\*\* Section 12 - Ecological Information \*\*\*

## Ecotoxicity

### A: General Product Information

Very toxic and harmful to aquatic life with long lasting effects.

### B: Component Analysis - Ecotoxicity - Aquatic Toxicity

#### Triethanolamine (102-71-6)

##### Test & Species

	Conditions
96 Hr LC50 Pimephales promelas	10600-13000 mg/L [flow-through]
96 Hr LC50 Pimephales promelas	>1000 mg/L [static]
96 Hr LC50 Lepomis macrochirus	450-1000 mg/L [static]
72 Hr EC50 Desmodemus subspicatus	216 mg/L
96 Hr EC50 Desmodemus subspicatus	169 mg/L
24 Hr EC50 Daphnia magna	1386 mg/L

#### Isophorone diamine (2855-13-2)

##### Test & Species

	Conditions
96 Hr LC50 Leuciscus idus	110 mg/L [semi-static]
72 Hr EC50 Desmodemus subspicatus	37 mg/L
24 Hr EC50 Daphnia magna	42 mg/L
48 Hr EC50 Daphnia magna	14.6 - 21.5 mg/L [semi-static]

#### Benzyl alcohol (100-51-6)

##### Test & Species

	Conditions
96 Hr LC50 Pimephales promelas	460 mg/L [static]
96 Hr LC50 Lepomis macrochirus	10 mg/L [static]
3 Hr EC50 Anabaena variabilis	35 mg/L
48 Hr EC50 water flea	23 mg/L

#### Piperazine (110-85-0)

##### Test & Species

	Conditions
96 Hr LC50 Lepomis macrochirus	>10000 mg/L [static]
96 Hr EC50 water flea	6915 mg/L

#### Nonylphenols (25154-52-3)

##### Test & Species

	Conditions
96 Hr LC50 Pimephales promelas	0.135 mg/L [flow-through]



# Safety Data Sheet

## Material Name: Super Sap CLS Hardener

96 Hr EC50 Pseudokirchneriella subcapitata	0.41 mg/L
72 Hr EC50 Desmodesmus subspicatus	1.3 mg/L
48 Hr EC50 Daphnia magna	0.14 mg/L
48 Hr EC50 Daphnia magna	0.17 - 0.21 mg/L [Static]
48 Hr EC50 Daphnia magna	0.0874 - 0.124 mg/L [semi-static]

### 1-(2-Aminoethyl) piperazine (140-31-8)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	1950-2460 mg/L [flow-through]
96 Hr LC50 Poecilia reticulata	>1000 mg/L [semi-static]
96 Hr LC50 Oncorhynchus mykiss	>=100 mg/L [semi-static]
72 Hr EC50 Pseudokirchneriella subcapitata	495 mg/L
48 Hr EC50 Daphnia magna	32 mg/L

### Benzyldimethylamine (103-83-3)

Test & Species	Conditions
96 Hr LC50 Pimephales promelas	35.8-39.9 mg/L [flow-through]

## Persistence/Degradability

No information available for the product.

## Bioaccumulation

No information available for the product.

## Mobility in Soil

No information available for the product.

## \*\*\* Section 13 - Disposal Considerations \*\*\*

### Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

### Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations.

## \*\*\* Section 14 - Transportation Information \*\*\*

### IATA Information

**Shipping Name:** Polyamines, liquid, corrosive, n.o.s. (m-Xylenediamine, Isophoronediamine)

**UN #:** 2735 **Hazard Class:** 8 **Packing Group:** III

### ICAO Information

**Shipping Name:** Polyamines, liquid, corrosive, n.o.s. (m-Xylenediamine, Isophoronediamine)

**UN #:** 2735 **Hazard Class:** 8 **Packing Group:** III

# Safety Data Sheet

Material Name: Super Sap CLS Hardener

## IMDG Information

**Shipping Name:** Polyamines, liquid, corrosive, n.o.s. (m-Xylenediamine, Isophoronediamine)

**UN #:** 2735 **Hazard Class:** 8 **Packing Group:** III

## \* \* \* Section 15 - Regulatory Information \* \* \*

### Regulatory Information

#### EU MARKING AND LABELLING:

**Symbol(s):**

C

#### Risk Phrases:

R34 Causes burns.

R42/43 May cause sensitization by inhalation and skin contact.

R62 Possible risk of impaired fertility.

R63 Possible risk of harm to the unborn child.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Substance Analysis - Inventory

Component/CAS	EC #	EEC	CAN	TSCA
Triethanolamine 102-71-6	203-049-8	EINECS	DSL	Yes
Propylene glycol diamine, 2-amino-, diether with Propylene 9046-10-0	618-561-0	No	DSL	Yes
m-Xylene- $\alpha,\alpha'$ -diamine 1477-55-0	216-032-5	EINECS	DSL	Yes
Isophorone diamine 2855-13-2	220-666-8	EINECS	DSL	Yes
Benzyl alcohol 100-51-6	202-859-9	EINECS	DSL	Yes
Piperazine 110-85-0	203-808-3	EINECS	DSL	Yes
Nonylphenols 25154-52-3	246-672-0	EINECS	DSL	Yes
1-(2-Aminoethyl) piperazine 140-31-8	205-411-0	EINECS	DSL	Yes
Benzyl dimethylamine 103-83-3	203-149-1	EINECS	DSL	Yes

# Safety Data Sheet

Material Name: Super Sap CLS Hardener

## \*\*\* Section 16 - Other Information \*\*\*

### Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; AS = Standards Australia; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NOHSC = National Occupational Health & Safety Commission; NTP = National Toxicology Program; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average

### Literature References

None

### Other Information

USER'S RESPONSIBILITY / DISCLAIMER OF LIABILITY: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as a guarantee of any specific property of the product.

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

This bulletin cannot cover all possible situations that the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to develop appropriate work practice guidelines and employee instructional programs for your operation.

End of Sheet