

SAFETY DATA SHEET

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

Product identifier

Trade name or designation of the mixture Super Sap CLF Hardener

Registration number -

Synonyms None.

Date of first issue 01-June-2012

Version number 02

Revision date -

Supersedes date -

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Modified polyamine for curing epoxy resins

Uses advised against None known.

Details of the supplier of the safety data sheet

Company name Entropy Resins

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Contact person: Jaime Ferrer-Delmau

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Number Global Response Access Code: 333178

Section 2: Hazards identification

Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification C;R34, Xn;R20/21/22, R43, N;R51-53

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Acute toxicity, oral	Category 4	Harmful if swallowed.
Acute toxicity, dermal	Category 4	Harmful in contact with skin.
Skin corrosion/irritation	Category 1	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	Causes serious eye damage.
Skin sensitisation	Category 1	May cause an allergic skin reaction.

Environmental hazards

Hazardous to the aquatic environment - long-term hazard	Category 2	Toxic to aquatic life with long lasting effects.
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Hazard summary

Physical hazards Not classified for physical hazards.

Health hazards Harmful by inhalation, in contact with skin and if swallowed. Causes burns. May cause sensitisation by skin contact.

Environmental hazards Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Specific hazards Ingestion may cause irritation and malaise.

Main symptoms Rash. Symptoms include itching, burning, redness, and tearing of eyes.

Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: 3-Aminomethyl-3,5,5-trimethyl-cyclohexylamine, Benzyl alcohol, Dimethylbenzyl amine, Nonylphenol, m-Phenylenebis(methylamine)



Signal word Danger

Hazard statements Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention Do not breathe mist or vapour. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response Collect spillage. 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. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse.

Storage Store locked up.

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

Supplemental label information Not applicable.

Other hazards Not assigned.

Section 3: Composition/information on ingredients**Mixture****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Benzyl alcohol	<40	100-51-6 202-859-9	-	603-057-00-5	
Classification:		DSD: Xn;R20/22			
		CLP: Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Irrit. 2;H315, Skin Sens. 1;H317, Acute Tox. 4;H332, Aquatic Chronic 2;H411			
3-Aminomethyl-3,5,5-trimethyl-cyclohexylamine	<30	2855-13-2 220-666-8	-	612-067-00-9	
Classification:		DSD: C;R34, Xn;R21/22, R43, R52-53			
		CLP: Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Corr. 1B;H314, Skin Sens. 1;H317, Eye Dam. 1;H318, Aquatic Chronic 3;H412			
m-Phenylenebis(methylamine)	<30	1477-55-0 216-032-5	-	-	
Classification:		DSD: C;R34, Xn;R20/22, R43, R52-53			
		CLP: Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Corr. 1B;H314, Skin Sens. 1;H317, Eye Dam. 1;H318, Acute Tox. 4;H332, Aquatic Chronic 3;H412			
Dimethylbenzyl amine	<=5	103-83-3 203-149-1	-	612-074-00-7	
Classification:		DSD: R10, C;R34, Xn;R20/21/22, R52-53			
		CLP: Flam. Liq. 3;H226, Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Corr. 1B;H314, Eye Dam. 1;H318, Acute Tox. 4;H332, Aquatic Chronic 3;H412			

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
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Nonylphenol	<5	25154-52-3 246-672-0	-	601-053-00-8	
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Classification: **DSD:** Repr. Cat. 3;R62-63, C;R34, Xn;R22, N;R50-53
CLP: Acute Tox. 4;H302, Skin Corr. 1B;H314, Eye Dam. 1;H318, Repr. 2;H361fd, Aquatic Acute 1;H400, Aquatic Chronic 1;H410

CLP: Regulation No. 1272/2008.
DSD: Directive 67/548/EEC.

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
The full text for all R- and H-phrases is displayed in section 16.

Section 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Description of first aid measures

Inhalation Move to fresh air. Get medical attention if any discomfort occurs.

Skin contact Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion Never give anything by mouth to an unconscious person. If ingestion of a large amount does occur, call a poison control centre immediately. Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Get medical attention if any discomfort occurs.

Most important symptoms and effects, both acute and delayed Rash. Symptoms include itching, burning, redness, and tearing of eyes.

Indication of any immediate medical attention and special treatment needed Treat symptomatically.

Section 5: Firefighting measures

General fire hazards May burn, but does not ignite readily.

Extinguishing media

Suitable extinguishing media Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

Special firefighting procedures Not available.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Avoid contact with skin and eyes. See Section 8 for personal protective equipment.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions Avoid release to the environment. Refer to special instructions/safety data sheets.

Methods and material for containment and cleaning up	<p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills in original containers for re-use.</p>
Reference to other sections	See Section 8 for personal protective equipment. For waste disposal, see Section 13.

Section 7: Handling and storage

Precautions for safe handling	Avoid contact with skin and eyes. Use Personal Protective Equipment recommended in section 8 of the MSDS. Provide adequate ventilation. Wear respiratory protection during operations where spraying or misting occurs. Change contaminated clothing. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store in tightly closed original container in a dry, cool and well-ventilated place. Store away from incompatible materials.
Specific end use(s)	Compositions for the building and civil engineering industries e.g. flooring compounds, primers, adhesives, mortars, joints and grouts. Offshore & Marine applications.

Section 8: Exposure controls/personal protection

Control parameters	
Occupational exposure limits	No exposure limits noted for the ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.
DNEL	Not available.
PNEC	Not available.
Exposure controls	
Appropriate engineering controls	Provide adequate ventilation.
Individual protection measures, such as personal protective equipment	
General information	Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Private clothes and working clothes should be kept separately. Make sure to provide adequate control by applying the "COSHH Essentials" procedure.
Eye/face protection	Wear approved safety goggles.
Skin protection	
- Hand protection	Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Use protective gloves made of: Polyethylene/Ethylene Vinyl Alcohol (PE/EVAL). Suitable gloves can be recommended by the glove supplier.
- Other	Wear appropriate clothing to prevent any possibility of skin contact.
Respiratory protection	No personal respiratory protective equipment normally required. In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with gas filter (type A2). Observe special requirements if using the product for spraying.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.
Environmental exposure controls	Environmental manager must be informed of all major releases.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Amber liquid.
Physical state	Liquid.
Form	Liquid.
Colour	Amber.
Odour	Characteristic.
Odour threshold	Not available.
pH	Not applicable.

Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	> 200 °C (> 392 °F)
Flash point	> 100 °C (> 212 °F)
Auto-ignition temperature	> 200 °C (> 392 °F)
Flammability (solid, gas)	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Oxidising properties	Not applicable.
Explosive properties	Not applicable.
Explosive limit	Not applicable.
Vapour pressure	1 Pa (20°C/ 68°F)
Vapour density	Not applicable.
Evaporation rate	< 1 (Butyl acetate=1)
Relative density	Not available.
Density	0.97 - 1.2 g/cm ³ @ 20 °C
Solubility (water)	miscible
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Percent volatile	Not available.
Other information	No relevant additional information available.

Section 10: Stability and reactivity

Reactivity	Reacts with oxidising agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Polymerises exothermically with amines, mercaptans and Lewis acids at ambient temperature and above. Polymerises in contact with bases (eg caustic soda), ammonia, primary and secondary amines, alcohol's and acids.
Conditions to avoid	Contact with incompatible materials. Heat, flames and sparks. Avoid temperatures exceeding the flash point.
Incompatible materials	Caustic soda. Strong oxidising agents.
Hazardous decomposition products	None under normal temperatures and pressures.

Section 11: Toxicological information

General information	Persons with pre-existing skin disorders may be more susceptible to the effects of the product.
Information on likely routes of exposure	
Ingestion	Harmful if swallowed.
Inhalation	Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Symptoms	Symptoms include itching, burning, redness, and tearing of eyes. Rash.
Information on toxicological effects	
Acute toxicity	Causes severe skin burns and eye damage. Harmful if swallowed or absorbed through skin.

Components	Test results
Benzyl alcohol (100-51-6)	Acute Dermal LD50 Rabbit: 2000 mg/kg Acute Inhalation LC100 Rat: 200 - 300 mg/l 8 Hours Acute Oral LD50 Rat: 1230 - 3100 mg/kg Acute Other LD50 Mouse: 950 mg/kg Acute Other LD50 Rat: 314 mg/kg
Nonylphenol (25154-52-3)	Acute Dermal LD50 Rabbit: 2140 mg/kg

Components**Test results**

Acute Oral LD50 Rat: 1600 mg/kg

Skin corrosion/irritation	May cause redness and pain.
Serious eye damage/eye irritation	Exposed may experience eye tearing, redness, and discomfort.
Respiratory sensitisation	Not available.
Skin sensitisation	May cause sensitization by skin contact.
Germ cell mutagenicity	Positive in vitro, but negative in vivo assays.
Carcinogenicity	Not classified.
Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not applicable.
Mixture versus substance information	No additional adverse health effects noted.
Other information	Contains a small amount of a substance which is not recommended for repeated or routine use during pregnancy or lactation.

Section 12: Ecological information**Toxicity**

Components	Test results
Benzyl alcohol (100-51-6)	LC50 Bluegill (<i>Lepomis macrochirus</i>): 10 mg/l 96 hours
Dimethylbenzyl amine (103-83-3)	LC50 Fathead minnow (<i>Pimephales promelas</i>): 35.8 - 39.9 mg/l 96 hours
Nonylphenol (25154-52-3)	EC50 Water flea (<i>Daphnia magna</i>): 0.076 - 0.0946 mg/l 48 hours LC50 Fathead minnow (<i>Pimephales promelas</i>): 0.098 - 0.187 mg/l 96 hours
3-Aminomethyl-3,5,5-trimethyl-cyclohexylamine (2855-13-2)	EC50 Water flea (<i>Daphnia magna</i>): 14.6 - 21.5 mg/l 48 hours
Persistence and degradability	The product is not readily biodegradable.
Bioaccumulative potential	Has the potential to bioaccumulate.
Mobility	The product is insoluble in water and will sediment in water systems.
Environmental fate - Partition coefficient	Not available.
Mobility in soil	Not available.
Results of PBT and vPvB assessment	Not available.
Other adverse effects	Toxic to aquatic life with long lasting effects.

Section 13: Disposal considerations**Waste treatment methods**

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied.
EU waste code	16 05 08*
Disposal methods/information	This material and its container must be disposed of as hazardous waste. Do not discharge into drains, water courses or onto the ground. Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

Section 14: Transport information**ADR**

UN number	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s. (m-Phenylenebis(methylamine))
Transport hazard class(es)	8

Subsidiary class(es)	- III
Packing group	No
Environmental hazards	8
Labels required	Not available.
Special precautions for user	
RID	UN2735
UN number	Amines, liquid, corrosive, n.o.s. (m-Phenylenebis(methylamine))
UN proper shipping name	8
Transport hazard class(es)	- III
Subsidiary class(es)	No
Packing group	8
Environmental hazards	Not available.
Labels required	
Special precautions for user	UN2735
ADN	Amines, liquid, corrosive, n.o.s. (m-Phenylenebis(methylamine))
UN number	8
UN proper shipping name	- III
Transport hazard class(es)	No
Subsidiary class(es)	8
Packing group	Not available.
Environmental hazards	
Labels required	UN2735
Special precautions for user	Amines, liquid, corrosive, n.o.s. (m-Phenylenebis(methylamine))
IATA	8
UN number	- III
UN proper shipping name	No
Transport hazard class(es)	8
Subsidiary class(es)	Not available.
Packing group	
Environmental hazards	UN2735
Labels required	Amines, liquid, corrosive, n.o.s. (m-Phenylenebis(methylamine))
Special precautions for user	8
IMDG	- III
UN number	No
UN proper shipping name	8
Transport hazard class(es)	Not available.
Subsidiary class(es)	No information available.
Packing group	
Marine pollutant	
Labels required	
Special precautions for user	
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	

Section 15: Regulatory information

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

EU Regulations

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1

Nonylphenol (CAS 25154-52-3)

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Nonylphenol (CAS 25154-52-3)

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

Not listed.

Directive 96/61/EC concerning integrated pollution prevention and control (IPPC): Article 15, European Pollution Emission Registry (EPER)

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List

Not listed.

Other regulations	Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 as amended.
National regulations	Not available.
Chemical safety assessment	No Chemical Safety Assessment has been carried out.

Section 16: Other information

List of abbreviations	DNEL: Derived No-Effect Level. PNEC: Predicted No-Effect Concentration. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent and very Bioaccumulative.
References	Not available.
Information on evaluation method leading to the classification of mixture	The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.
Full text of any statements or R-phrases and H-phrases under Sections 2 to 15	R10 Flammable. R20/21/22 Harmful by inhalation, in contact with skin and if swallowed. R20/22 Harmful by inhalation and if swallowed. R21/22 Harmful in contact with skin and if swallowed. R22 Harmful if swallowed. R34 Causes burns. R43 May cause sensitisation by skin contact. R50 Very toxic to aquatic organisms. R51 Toxic to aquatic organisms. R52 Harmful to aquatic organisms. R53 May cause long-term adverse effects in the aquatic environment. R62 Possible risk of impaired fertility. R63 Possible risk of harm to the unborn child. H226 - Flammable liquid and vapour. H302 - Harmful if swallowed. H312 - Harmful in contact with skin. H314 - Causes severe skin burns and eye damage. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H332 - Harmful if inhaled. H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child. H400 - Very toxic to aquatic life. H410 - Very toxic to aquatic life with long lasting effects. H411 - Toxic to aquatic life with long lasting effects. H412 - Harmful to aquatic life with long lasting effects.
Training information	Not available.
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.