

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Revision date: 30/09/2013

Version: 1.0

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

1.1. Product Identifier

Product form : Mixture
Product Name : Super Sap® CLX Hardener
Product code : CLX01

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only.
Use of the substance/mixture : Curing agent for Epoxy Resin

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company

Entropy Resins, Inc.
30621 San Antonio St.
Hayward, CA 94544
T 310.882.2120

www.entropyresins.com

1.4. Emergency Telephone Number

Emergency Number : +1-760.476.3962 (3E Company) Contract 333178

SECTION 2: Hazards identification

2.1. Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302
Skin Corr. 1A H314
Eye Dam. 1 H318
Resp. Sens. 1 H334
Skin Sens. 1 H317
Repr. 2 H361
Aquatic Acute 1 H400
Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

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

Xn; R22
C; R34
Xi; R41
Xn; R42
Xi; R43
Repr.Cat.3; R62
Repr.Cat.3; R63
N; R51/53
N; R50

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label Elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients : Piperazine, 1-(2-Aminoethyl) piperazine, Trimethylhexamethylenediamine,

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Hazard statements (CLP)	Isophorone diamine, 4,7-Methano-1H-indenedimethanamine, octahydro-, 1,3-Cyclohexanedimethanamine, 4-Nonylphenol, branched : H302 - Harmful if swallowed H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled H361 - Suspected of damaging fertility or the unborn child H400 - Very toxic to aquatic life H411 - Toxic to aquatic life with long lasting effects
Precautionary statements (CLP)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe vapors, mist, spray. P264 - Wash hands, forearms, and other exposed areas thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. 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. P285 - In case of inadequate ventilation wear respiratory protection P301+P312 - If swallowed, call a doctor if you feel unwell. P301+P330+P331 - If swallowed: Rinse mouth. Do NOT induce vomiting. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. P304+P341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 - If exposed or concerned: Get medical advice/attention. P310 - Immediately call a POISON CENTER or doctor/physician. P321 - Specific treatment (see section 4). P330 - Rinse mouth. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P391 - Collect spillage. P405 - Store locked up. P501 - Dispose of contents/container according to local/national.

2.3. Other Hazards

Other hazards not contributing to the classification : Exposure may aggravate those with pre existing eye, skin, or respiratory conditions.
May cause an allergic reaction in sensitive individuals.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product Identifier	%	Classification according to Directive 67/548/EEC
Benzyl alcohol	(CAS No) 100-51-6 (EC no) 202-859-9 (EC index no) 603-057-00-5	10 - 40	Xn; R20/22
1,3-Cyclohexanedimethanamine	(CAS No) 2579-20-6 (EC no) 219-941-5	> 30	Xn; R21/22 C; R35 R52/53

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Name	Product Identifier	%	Classification according to Directive 67/548/EEC
Trimethylhexamethylenediamine	(CAS No) 25620-58-0 (EC no) 247-134-8	5 - 20	Xn; R22 C; R34 Xi; R41 R52/53 Xn; R42
4-Nonylphenol, branched substance listed as REACH Candidate (4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof])	(CAS No) 84852-15-3 (EC no) 284-325-5 (EC index no) 601-053-00-8	5 - 20	Xn; R22 C; R34 N; R50/53 Repr.Cat.3; R62 Repr.Cat.3; R63
Isophorone diamine	(CAS No) 2855-13-2 (EC no) 220-666-8 (EC index no) 612-067-00-9	5 - 10	Xn; R21/22 C; R34 Xi; R43 R52/53
Triethanolamine substance with national workplace exposure limit(s) (AT, BE, CZ, DK, ES, ET, FI, IE, IT, LT, PT, SE, SL)	(CAS No) 102-71-6 (EC no) 203-049-8	<= 5	Not classified
1-(2-Aminoethyl) piperazine	(CAS No) 140-31-8 (EC no) 205-411-0 (EC index no) 612-105-00-4	< 1	Xn; R22 C; R34 Xi; R43 R52/53 T; R24 Xi; R41
4,7-Methano-1H-indenedimethanamine, octahydro-	(CAS No) 68889-71-4 (EC no) 272-573-7	< 1	Xn; R22 T; R24 Xi; R41 Xi; R43 Xi; R37

Name	Product Identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Benzyl alcohol	(CAS No) 100-51-6 (EC no) 202-859-9 (EC index no) 603-057-00-5	10 - 40	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332
1,3-Cyclohexanedimethanamine	(CAS No) 2579-20-6 (EC no) 219-941-5	> 30	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Aquatic Chronic 3, H412
Trimethylhexamethylenediamine	(CAS No) 25620-58-0 (EC no) 247-134-8	5 - 20	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Name	Product Identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4-Nonylphenol, branched substance listed as REACH Candidate (4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof])	(CAS No) 84852-15-3 (EC no) 284-325-5 (EC index no) 601-053-00-8	5 - 20	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Repr. 2, H361f Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Isophorone diamine	(CAS No) 2855-13-2 (EC no) 220-666-8 (EC index no) 612-067-00-9	5 - 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Triethanolamine substance with national workplace exposure limit(s) (AT, BE, CZ, DK, ES, ET, FI, IE, IT, LT, PT, SE, SL)	(CAS No) 102-71-6 (EC no) 203-049-8	<= 5	Not classified
1-(2-Aminoethyl) piperazine	(CAS No) 140-31-8 (EC no) 205-411-0 (EC index no) 612-105-00-4	< 1	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412
4,7-Methano-1H-indenedimethanamine, octahydro-	(CAS No) 68889-71-4 (EC no) 272-573-7	< 1	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of First Aid Measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Obtain medical attention if breathing difficulty persists.
- First-aid measures after skin contact : Wash contaminated clothing before reuse. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after eye contact : Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists. Immediately call a POISON CENTER or doctor/physician. Remove contact lenses, if present and easy to do. Continue rinsing.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Seek medical attention immediately.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

- Symptoms/injuries : Harmful if swallowed. Corrosive. Causes burns. May cause an allergic skin reaction. Inhalation may cause allergic respiratory reaction with asthma-like symptoms and difficulty breathing. Suspected of damaging fertility. Suspected of damaging the unborn child.
- Symptoms/injuries after inhalation : May cause respiratory irritation. Exposure may produce an allergic reaction.
- Symptoms/injuries after skin contact : Causes severe irritation which will progress to chemical burns. May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : Causes serious eye damage.

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Symptoms/injuries after ingestion : Harmful if swallowed. May cause nausea, vomiting, and diarrhea. Gastrointestinal irritation.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: Firefighting measures

5.1. Extinguishing Media

Suitable extinguishing media : Foam, dry chemical, carbon dioxide, water spray, fog.
Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire hazard : Not considered flammable but may burn at high temperatures.
Explosion hazard : Product is not explosive.
Reactivity : Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire.
Firefighting instructions : Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
Other information : Do not allow run-off from fire fighting to enter drains or water courses. Fire may produce irritating and/or toxic gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not get in eyes, on skin, or on clothing. Avoid breathing (vapor, mist, spray).

6.1.1. For non-emergency personnel

Protective equipment : Use appropriate personal protection equipment (PPE).
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up : Clear up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as: saw dust or cellulosic material. Contact competent authorities after a spill.

6.4. Reference to other sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Avoid all eyes and skin contact and do not breathe vapour and mist. Under fire conditions or contact with incompatibilities decomposition will produce toxic, and corrosive gases.
Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.
Storage conditions : Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from extremely high or low temperatures, ignition sources, incompatible materials.
Incompatible products : Strong acids, strong bases, strong oxidizers, metals, aldehydes, ketones.

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

7.3. Specific end use(s)

Curing agent for Epoxy Resin. For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Benzyl alcohol (100-51-6)		
Bulgaria	OEL TWA (mg/m ³)	5.0 mg/m ³
Latvia	OEL TWA (mg/m ³)	5 mg/m ³
Czech Republic	Expoziční limity (PEL) (mg/m ³)	40 mg/m ³
Finland	HTP-arvo (8h) (mg/m ³)	45 mg/m ³
Finland	HTP-arvo (8h) (ppm)	10 ppm
Lithuania	IPRV (mg/m ³)	5 mg/m ³
Poland	NDS (mg/m ³)	240 mg/m ³
Triethanolamine (102-71-6)		
Austria	MAK (mg/m ³)	10 mg/m ³
Austria	MAK (ppm)	0.8 ppm
Austria	MAK Short time value (ppm)	1.6 ppm
Belgium	Limit value (mg/m ³)	5 mg/m ³
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
Spain	VLA-ED (mg/m ³)	5 mg/m ³
Czech Republic	Expoziční limity (PEL) (mg/m ³)	5 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	3.1 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	0.5 ppm
Finland	HTP-arvo (8h) (mg/m ³)	5 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	5 mg/m ³
Lithuania	IPRV (mg/m ³)	5 mg/m ³
Lithuania	TPRV (mg/m ³)	10 mg/m ³
Sweden	nivågränsvärde (NVG) (mg/m ³)	5 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	0.8 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	10 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	1.6 ppm
Portugal	OEL TWA (mg/m ³)	5 mg/m ³

8.2. Exposure controls

Appropriate engineering controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

Personal protective equipment

: Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.



Materials for protective clothing

: Chemically resistant materials and fabrics.

Hand protection

: Wear chemically resistant protective gloves.

Eye protection

: Chemical goggles or safety glasses.

Skin and body protection

: Wear suitable protective clothing.

Respiratory protection

: In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other information

: When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

: Liquid

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Appearance	: Clear to light yellow.
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.98
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Strong acids, bases, amines, or mercaptans may cause polymerization.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Incompatible materials. Ignition sources.

10.5. Incompatible materials

Strong oxidizing agents, strong acids, strong bases, metals, aldehydes, ketones, halogenated compounds.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂), nitrogen oxides, smoke, may release flammable gases, hydrogen, hydrogen cyanide, toxic gases, ammonia, nitric acid, benzaldehyde, sulfur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

1-(2-Aminoethyl) piperazine (140-31-8)	
LD50 oral rat	2140 mg/kg
LD50 dermal rabbit	880 µl/kg

Trimethylhexamethylenediamine (25620-58-0)	
LD50 oral rat	910 mg/kg

Isophorone diamine (2855-13-2)	
LD50 oral rat	1030 mg/kg

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

4,7-Methano-1H-indenedimethanamine, octahydro- (68889-71-4)	
ATE (oral)	500.000 mg/kg bodyweight
ATE (dermal)	300.000 mg/kg bodyweight
Benzyl alcohol (100-51-6)	
LD50 oral rat	1230 mg/kg
LD50 dermal rat	1700 mg/kg
LD50 dermal rabbit	2000 mg/kg
LC50 inhalation rat (mg/l)	8.8 mg/l (Exposure time: 4 h)
Triethanolamine (102-71-6)	
LD50 oral rat	4190 mg/kg
1,3-Cyclohexanedimethanamine (2579-20-6)	
ATE (oral)	500.000 mg/kg bodyweight
ATE (dermal)	1100.000 mg/kg bodyweight
4-Nonylphenol, branched (84852-15-3)	
LD50 oral rat	580 mg/kg
LD50 dermal rabbit	2031 mg/kg

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified. Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified. Based on available data, the classification criteria are not met
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: Not classified. Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified. Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified. Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

1-(2-Aminoethyl) piperazine (140-31-8)	
LC50 fishes 1	1950 - 2460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	32 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	495 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata)
LC50 fish 2	> 1000 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static])
Trimethylhexamethylenediamine (25620-58-0)	
LC50 fishes 1	172 mg/l (Exposure time: 48 h - Species: Leuciscus idus [static])
EC50 Daphnia 1	31.5 mg/l (Exposure time: 24 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	29.5 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

Isophorone diamine (2855-13-2)	
LC50 fishes 1	110 mg/l (Exposure time: 96 h - Species: Leuciscus idus [semi-static])
EC50 Daphnia 1	42 mg/l (Exposure time: 24 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	37 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Isophorone diamine (2855-13-2)	
EC50 Daphnia 2	14.6 - 21.5 mg/l (Exposure time: 48 h - Species: Daphnia magna [semi-static])
Benzyl alcohol (100-51-6)	
LC50 fishes 1	460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	23 mg/l (Exposure time: 48 h - Species: water flea)
EC50 other aquatic organisms 1	35 mg/l (Exposure time: 3 h - Species: Anabaena variabilis)
LC50 fish 2	10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
Triethanolamine (102-71-6)	
LC50 fishes 1	10600 (10600 - 13000) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	1386 mg/l (Exposure time: 24 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	216 mg/l (Exposure time: 72 h - Species: Desmodemus subspicatus)
LC50 fish 2	1000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 other aquatic organisms 2	169 mg/l (Exposure time: 96 h - Species: Desmodemus subspicatus)
4-Nonylphenol, branched (84852-15-3)	
LC50 fishes 1	0.135 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0.14 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	0.36 - 0.48 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata [static])
LC50 fish 2	0.1351 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
EC50 other aquatic organisms 2	0.16 - 0.72 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [static])

12.2. Persistence and degradability

Super Sap® CLX Hardener	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

Super Sap® CLX Hardener	
Bioaccumulative potential	Not established.
1-(2-Aminoethyl) piperazine (140-31-8)	
BCF fish 1	(no bioaccumulation expected)
Log Pow	-1.48
Trimethylhexamethylenediamine (25620-58-0)	
Log Pow	0.77 (at 23 °C)
Isophorone diamine (2855-13-2)	
Log Pow	0.79 (at 23 °C)
Benzyl alcohol (100-51-6)	
Log Pow	1.1
Triethanolamine (102-71-6)	
BCF fish 1	3.9
Log Pow	-2.53
4-Nonylphenol, branched (84852-15-3)	
BCF fish 1	271

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

4-Nonylphenol, branched (84852-15-3)	
This substance/mixture meets the PBT criteria of REACH, annex XIII.	

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

4-Nonylphenol, branched (84852-15-3)

This substance/mixture meets the vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No : 2735

14.2. UN proper shipping name

Proper Shipping Name : AMINES, LIQUID, CORROSIVE, N.O.S.

Transport document description : UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (1,3-Cyclohexanedimethanamine), 8, II, (E)

14.3. Transport hazard class(es)

Class (UN) : 8

Hazard labels (UN) : 8



14.4. Packing group

Packing group (UN) : II

14.5. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 80

Classification code (UN) : C7

Orange plates :



Special provision (ADR) : 274

Transport category (ADR) : 2

Tunnel restriction code : E

Limited quantities (ADR) : 1L

Excepted quantities (ADR) : E2

EAC code : 2X

APP code : B

14.6.2. Transport by Sea

MFAG-No : 153

14.6.3. Air Transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Authorisations and/or restrictions on use (Annex XVII):

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Super Sap® CLX Hardener - 1-(2-Aminoethyl) piperazine - Trimethylhexamethylenediamine - Isophorone diamine - 4,7-Methano-1H-indenedimethanamine, octahydro- - Benzyl alcohol - 1,3-Cyclohexanedimethanamine - 4-Nonylphenol, branched
--	---

Contains REACH Candidate List substance(s): 4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof] (EC 284-325-5, CAS 84852-15-3)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Revision date	: 30/09/2013
Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of R-, H- and EUH-phrases::

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Resp. Sens. 1	Sensitisation — Respiratory, category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1C
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H311	Toxic in contact with skin
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
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H361	Suspected of damaging fertility or the unborn child

Super Sap® CLX Hardener

Safety Data Sheet

according to Regulation (EC) No. 453/2010

H361f	Suspected of damaging fertility
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
R20/22	Harmful by inhalation and if swallowed
R21/22	Harmful in contact with skin and if swallowed
R22	Harmful if swallowed
R24	Toxic in contact with skin
R34	Causes burns
R35	Causes severe burns
R37	Irritating to respiratory system
R41	Risk of serious damage to eyes
R42	May cause sensitization by inhalation
R43	May cause sensitisation by skin contact
R50	Very toxic to aquatic organisms
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53	Harmful to aquatic organisms, 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
C	Corrosive
N	Dangerous for the environment
T	Toxic
Xi	Irritant
Xn	Harmful

SDS EU (REACH Annex II) 10pt

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 guaranteeing any specific property of the product