



Safety Data Sheet
 according to Regulation (EC)
 No. 2015/830



SECTION 1: Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier	531XX/A	Revision Date:	08/05/2017
Product Name:	Stonchem 691 Amine	Supersedes Date:	26/04/2017

1.2 Relevant identified uses of the substance or mixture and uses advised against Hardener for 2 components coatings - Industrial use.

1.3 Details of the supplier of the safety data sheet

Importer: StonCor Europe
9, Rue du Travail - 1400 Nivelles, Belgium

Manufacturer: Stonhard, Division of StonCor Group, Inc.
1000 East Park Avenue
Maple Shade, NJ 08052

+1 856 7797500 (US)

Regulatory / Technical Information:
+32 67493710 Nivelles, Belgium

Datasheet Produced by: ehs@stonhard.com

1.4 Emergency telephone number: CHEMTREC +1 703 5273887 (Outside US)

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Acute Toxicity, Oral, category 4	H302
Skin Corrosion, category 1	H314-1
Skin Sensitizer, category 1	H317
Acute Toxicity, Inhalation, category 4	H332
STOT, repeated exposure, category 2	H373
Hazardous to the aquatic environment, Chronic, category 2	H411

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

2,4,6-tris(dimethylaminomethyl)phenol, Benzyl alcohol, N-(3-(trimethoxysilyl)propyl)ethylenediamine, 4,4'-methylenebicyclohexylamine, 3-Aminomethyl-3,5,5-trimethylcyclohexylamine, cycloaliphatic amine adduct

HAZARD STATEMENTS

Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Skin Corrosion, category 1	H314-1	Causes severe skin burns and eye damage.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment, Chronic, category 2	H411	Toxic to aquatic life with long lasting effects.

PRECAUTION PHRASES

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P314	Get medical advice/attention if you feel unwell.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

SECTION 3: Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

CAS-No.	EINEC No.	Name According to EEC	%
1761-71-3	217-168-8	4,4'-methylenebicyclohexylamine	25-50
2855-13-2	220-666-8	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	10-25
90-72-2	202-013-9	2,4,6-tris(dimethylaminomethyl)phenol	10-25
38294-67-6	500-103-5	cycloaliphatic amine adduct	10-25
100-51-6	202-859-9	Benzyl alcohol	2.5-10

68609-08-5	614-657-1	cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol a diglycidyl ether homopolymer	2.5-10
1760-24-3	217-164-6	N-(3-(trimethoxysilyl)propyl)ethylenediamine	2.5-10

<u>CAS-No.</u>	<u>REACH Reg No.</u>	<u>CLP Symbols</u>	<u>CLP Hazard Statements</u>	<u>M-Factors</u>
1761-71-3		GHS05-GHS07-GHS08-GHS09	H302-314-317-373-411	
2855-13-2	01-2119514687-32-0002	GHS05-GHS07	H302-314-317-412	
90-72-2		GHS05-GHS07	H302-312-314	
38294-67-6		GHS07-GHS09	H302-317-411	
68609-08-5		GHS09	H411	
100-51-6	01-2119492630-38	GHS07	H302-312-319-332	
1760-24-3		GHS05-GHS07	H317-318-332-412	

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Causes severe burns. Harmful in contact with skin and if swallowed. Irritating to eyes and respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

SECTION 7: Handling and Storage**7.1 Precautions for safe handling**

Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist.

Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Direct sources of heat.

STORAGE CONDITIONS: Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

The mixing and application to be in accordance with the technical data sheets.

SECTION 8: Exposure Controls/Personal Protection**8.1 Control parameters****Ingredients with Occupational Exposure Limits (IR)**

<u>Name</u>	<u>CAS-No.</u>	<u>LTEL ppm</u>	<u>STEL ppm</u>	<u>STEL mg/m3</u>	<u>LTEL mg/m3</u>
4,4'-methylenebicyclohexanamine	1761-71-3				
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2				
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2				
cycloaliphatic amine adduct	38294-67-6				
Benzyl alcohol	100-51-6				
cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol a diglycidyl ether homopolymer	68609-08-5				
N-(3-(trimethoxysilyl)propyl)ethylenediamine	1760-24-3				

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

8.2 Exposure controls**Personal Protection**

RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required.

EYE PROTECTION: Safety glasses.

HAND PROTECTION: Rubber or plastic gloves. Long sleeved clothing. Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

Chemical Name:

3-Aminomethyl-3,5,5-trimethylcyclohexylamine

EC No.:

220-666-8

CAS-No.:

2855-13-2

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							0.526 mg/kg bw/day
Inhalation								
Dermal								

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.06 mg/l
Fresh water sediments	5.784 mg/kg
Marine water	0.006 mg/l
Marine sediments	0.578 mg/kg
Food chain	
Microorganisms in sewage treatment	3.18 mg/l
soil (agricultural)	1.121 mg/kg
Air	

Chemical Name:

Benzyl alcohol

EC No.:

202-859-9

CAS-No.:

100-51-6

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							
Inhalation		54.06 mg/m ³		13.5 mg/m ³				
Dermal		1.284		1.284				

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.162 mg/l
Fresh water sediments	0.836
Marine water	0.016 mg/l
Marine sediments	0.084
Food chain	0.034
Microorganisms in sewage treatment	1.579 mg/l
soil (agricultural)	0.063
Air	0.028 mg/m ³

SECTION 9: Physical and Chemical Properties**9.1 Information on basic physical and chemical properties**

Appearance:	Amber
Physical State	Liquid
Odor	Ammonical
Odor threshold	Not determined

pH	Alkaline
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	165 - N.D.
Flash Point, (°C)	94
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	N/A - N/A
Vapour Pressure	Not determined
Vapour density	Not determined
Relative density	8.36
Solubility in / Miscibility with water	Negligible
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Viscosity	333 cps
Explosive properties	Not applicable
Oxidising properties	Not applicable

9.2 Other information

VOC Content g/l:	80
Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.	
Specific Gravity (g/cm³)	1.004

SECTION 10: Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation may occur.

10.4 Conditions to avoid

Direct sources of heat.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50:	No Information
Inhalation LC50:	No Information

Irritation:	No information available.
Corrosivity:	Corrosive to skin.
Sensitization:	No information available.
Repeated dose toxicity:	No information available.
Carcinogenicity:	No information available.
Mutagenicity:	No information available.
Toxicity for reproduction:	No information available.
STOT-single exposure:	No information available.
STOT-repeated exposure:	No information available.
Aspiration hazard:	No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
1761-71-3	4,4'-methylenebicyclohexanamine	1200 mg/kg oral, rat	2110 mg/kg, rat	
2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	1030 mg/kg, rat	>2000 mg/kg, rat	
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	1000 mg/kg oral	1280 mg/kg	
100-51-6	Benzyl alcohol	1620 mg/kg, rat	2000 mg/kg, rabbit	>4178 mg/m3, rat

Additional Information:

No Information

SECTION 12: Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia):	No information
IC50 72hr (Algae):	No information
LC50 96hr (fish):	No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects: No information

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
1761-71-3	4,4'-methylenebicyclohexanamine	No information	No information	

2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine	23 mg/l	>50 mg/l	110 mg/l
90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	No information	No information	
38294-67-6	cycloaliphatic amine adduct	No information	No information	
68609-08-5	cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol a diglycidyl ether homopolymer	No information	No information	
100-51-6	Benzyl alcohol	230 mg/l	700 mg/l	460 mg/l
1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	No information	No information	

Further Ecological Information

Contains the following ingredients which are classified as water dangerous according to EEC directive No. 76/464/EEC in percentages > 1%.

<u>CAS-No.</u>	<u>Name According to EEC</u>
1761-71-3	4,4'-methylenebicyclohexanamine
2855-13-2	3-Aminomethyl-3,5,5-trimethylcyclohexylamine

SECTION 13: Disposal Considerations

13.1 WASTE TREATMENT METHODS: If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

European Waste Code:	080111
Packaging Waste Code:	150110

SECTION 14: Transport Information

14.1 UN number	UN2735
14.2 UN proper shipping name	Polyamines, liquid, corrosive, n.o.s.
Technical name	4,4'-Methylenebicyclohexamine, Isophoronediamine
14.3 Transport hazard class(es)	8
Subsidiary shipping hazard	N/A
14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	Not applicable
EmS-No.:	F-A, S-B
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

SECTION 15: Regulatory Information

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

National Regulations:

Denmark Product Registration Number:	Not available
Danish MAL Code:	Not available
Danish MAL Code - Mixture:	Not available
Sweden Product Registration Number:	Not available
Norway Product Registration Number:	Not available

WGK Class:

Not available

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other Information**Text for CLP Hazard Statements shown in Section 3 describing each ingredient:**

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.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Reasons for revision

Substance and/or Product Properties Changed in Section(s):

- 01 - Identification
- 02 - Hazard Identification
- 03 - Composition/Information On Ingredients
- 09 - Physical and Chemical Properties
- 11 - Toxicological Information
- 13 - Disposal Information
- 14 - Transportation Information
- 15 - Regulatory Information

Statement(s) Changed

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;
 European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;
 European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);
 EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit

OEL	Occupational exposure limit
ppm	Parts per million
mg/m3	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.