

Printing date 05/10/2018

Reviewed on 03/30/2015

1 Identification

- **Product identifier**
- **Trade name:** EL325 HTTC Hardener
- **Article number:** 1325089
- **Application of the substance / the mixture** Epoxy curing agent
- **Details of the supplier of the safety data sheet** SikaAxson US - EHS Department
- **Manufacturer/Supplier:**
Company Name: Axson Technologies US, Inc.-SikaAxson

Headquarters:
 31200 Stephenson Hwy
 Madison Heights, MI 48071
 USA

Manufacturing Site:
 1611 Hults Drive
 Eaton Rapids, MI 48827
 USA
 ehs-us@axson.com

- **Information department:** Product safety department
- **Emergency telephone number:**
 During normal opening times: +1 (248) 588-2270
 CHEMTREC 24-hour Emergency: +1 (800) 424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger

(Contd. on page 2)

US



BUILDING TRUST



Safety Data Sheet

acc. to OSHA HCS

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: **EL325 HTTC Hardener**

(Contd. of page 1)

- **Hazard-determining components of labeling:**

m-phenylenebis(methylamine)
 3-aminomethyl-3,5,5-trimethylcyclohexylamine
 1-methylimidazole
 1,6-Hexanediamine, 2,2,4 (or 2,4,4)-trimethyl-

- **Hazard statements**

Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

- **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray
Do not breathe dusts or mists.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Store locked up.

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

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 1

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = *3

Fire = 1

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 1477-55-0 EINECS: 216-032-5	<i>m</i> -phenylenebis(methylamine)	10-20%
CAS: 2855-13-2 EINECS: 220-666-8	3-aminomethyl-3,5,5-trimethylcyclohexylamine	≥5-<10%

(Contd. on page 3)



BUILDING TRUST



Safety Data Sheet

acc. to OSHA HCS

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: **EL325 HTTC Hardener**

		(Contd. of page 2)
CAS: 616-47-7 EINECS: 210-484-7	1-methylimidazole	≥1-<5%
CAS: 25513-64-8 EINECS: 247-134-8	1,6-Hexanediamine, 2,2,4 (or 2,4,4)-trimethyl-	≥0.1-<1%

4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

65997-17-3	Fibrous Glass	15 mg/m ³
------------	---------------	----------------------

(Contd. on page 4)



BUILDING TRUST



Safety Data Sheet

acc. to OSHA HCS

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: **EL325 HTTC Hardener**

(Contd. of page 3)

616-47-7	I-methylimidazole	2.3 mg/m ³
14808-60-7	Quartz (SiO ₂)	0.075 mg/m ³
1333-86-4	Carbon black	9 mg/m ³
· PAC-2:		
65997-17-3	Fibrous Glass	170 mg/m ³
616-47-7	I-methylimidazole	25 mg/m ³
14808-60-7	Quartz (SiO ₂)	33 mg/m ³
1333-86-4	Carbon black	99 mg/m ³
· PAC-3:		
65997-17-3	Fibrous Glass	990 mg/m ³
616-47-7	I-methylimidazole	150 mg/m ³
14808-60-7	Quartz (SiO ₂)	200 mg/m ³
1333-86-4	Carbon black	590 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.

(Contd. on page 5)

US

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: EL325 HTTC Hardener

(Contd. of page 4)

Protection of hands:


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:


Tightly sealed goggles

9 Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance:

Form: Thixotropic Paste

Color: Dark grey

Odor: Amine-like

Odor threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 198 °C (388.4 °F)

Flash point: 170 °C (338 °F)

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined.

Upper: Not determined.

(Contd. on page 6)



BUILDING TRUST



Safety Data Sheet

acc. to OSHA HCS

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: **EL325 HTTC Hardener**

(Contd. of page 5)

· Vapor pressure:	Not determined.
· Density at 20 °C (68 °F):	1.19 g/cm ³ (9.93 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	0.0 %
VOC content:	0.00 %
	0.0 g/l / 0.00 lb/gl
· Solids content:	67.6 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
?
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:

1477-55-0 m-phenylenebis(methylamine)

Oral	LD50	1,040 mg/kg (rat)
Inhalative	LC50/4 h	2.4 mg/l (rat)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Oral	LD50	1,030 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.

(Contd. on page 7)



BUILDING TRUST



Safety Data Sheet

acc. to OSHA HCS

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: **EL325 HTTC Hardener**

(Contd. of page 6)

- **on the eye:**

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

14808-60-7	Quartz (SiO ₂)	I
1333-86-4	Carbon black	2B

- **NTP (National Toxicology Program)**

14808-60-7	Quartz (SiO ₂)	K
------------	----------------------------	---

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

1477-55-0 m-phenylenebis(methylamine)	
72 or 96 hr ErC50	12 mg/l (Chaetogammarus marinus)
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine	
96 hr LC50	110 mg/l (Fish)
NOEC	3 mg/l (daphnia)

- **Persistence and degradability** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

-US-

(Contd. on page 8)

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: EL325 HTTC Hardener

(Contd. of page 7)

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT** NA2735
- **IMDG, IATA** UN2735
- **UN proper shipping name**
- **DOT** Amines, liquid, corrosive, n.o.s. (m-phenylenebis(methylamine), Isophoronediamine)
- **IMDG, IATA** AMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE)
- **Transport hazard class(es)**
- **DOT**
-
- **Class** 8 Corrosive substances
- **Label** 8
- **IMDG, IATA**
-
- **Class** 8 Corrosive substances
- **Label** 8
- **Packing group**
- **DOT, IMDG, IATA** III
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Warning: Corrosive substances
- **Danger code (Kemler):** 80
- **EMS Number:** F-A,S-B
- **Segregation groups** Alkalis
- **Stowage Category** A

(Contd. on page 9)



BUILDING TRUST



Safety Data Sheet

acc. to OSHA HCS

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: **EL325 HTTC Hardener**

(Contd. of page 8)

· Segregation Code	SG35 Stow "separated from" acids.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (M-PHENYLENEBIS(METHYLAMINE), ISOPHORONEDIAMINE), 8, III

15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act) (Substances not listed):**

All ingredients are listed.

· **Chemicals regulated by TSCA Section 12(b)**

None of the ingredients is listed.

· **Chemical regulated by TSCA 5(a)(2)rule:**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

1317-65-3 Calcium Carbonate

14808-60-7 Quartz (SiO₂)

1333-86-4 Carbon black

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

(Contd. on page 10)



BUILDING TRUST



Safety Data Sheet

acc. to OSHA HCS

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: **EL325 HTTC Hardener**

(Contd. of page 9)

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

14808-60-7	Quartz (SiO ₂)	A2
1333-86-4	Carbon black	A4

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

14808-60-7	Quartz (SiO ₂)
1333-86-4	Carbon black

- **Listed in CWC Regulations**

None of the ingredients is listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**

m-phenylenebis(methylamine)
 3-aminomethyl-3,5,5-trimethylcyclohexylamine
 1-methylimidazole
 1,6-Hexanediamine, 2,2,4 (or 2,4,4)-trimethyl-

- **Hazard statements**

Causes severe skin burns and eye damage.
 May cause an allergic skin reaction.

- **Precautionary statements**

Do not breathe dusts or mists.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 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/doctor.
 Specific treatment (see on this label).
 Wash contaminated clothing before reuse.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 11)

US



BUILDING TRUST



Safety Data Sheet

acc. to OSHA HCS

Printing date 05/10/2018

Reviewed on 03/30/2015

Trade name: EL325 HTTC Hardener

(Contd. of page 10)

· **Date of preparation / last revision** 05/10/2018 / 1

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

US