

Safety Data Sheet

Prepared in Accordance with HCS 29
C.F.R. 1910.1200



1. Identification of the Substance/Mixture and the Company/Undertaking

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|--|---|-------------------------|------------|
| 1.1 Product Identifier | 8443/A | Revision Date: | 03/13/2024 |
| Product Name: | Urethane Crush Amine | Supersedes Date: | 10/17/2023 |
| 1.2 Relevant identified uses of the substance or mixture and uses advised against | Hardener for 2 components coatings - Industrial use. Advised against: others than recommended | | |
| 1.3 Details of the supplier of the safety data sheet | | | |
| Manufacturer: | Stonhard, Division of StonCor Group, Inc.
1000 East Park Avenue
Maple Shade, NJ 08052

+1 856 7797500 (US) | | |
| Datasheet Produced by: | ehs@stonhard.com | | |
| 1.4 Emergency telephone number: | +1 703-741-5970 - North America
+1 800-424-9300
+55 11 4349 1359 - South America
+52 55 8526 4930 - Central America
+44 20 3885 0382 - Middle East, Eastern Europe, Western Europe, and Africa
+65 3163 8374 - Asia, South Asia, And Oceania | | |

2. Hazard Identification

2.1 Classification of the substance or mixture

Hazardous to the aquatic environment, Chronic, category 3
Eye Irritation, category 2A
Skin Irritation, category 2
Skin Sensitizer, category 1

2.2 Label elements**Symbol(s) of Product****Signal Word**

Warning

Named Chemicals on Label

tetraethyl n, n'-(methylenedicyclohexane-4,1,-diyl) bis-dl-aspartate

HAZARD STATEMENTS

Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2A	H319	Causes serious eye irritation.
Hazardous to the aquatic environment, Chronic, category 3	H412	Harmful to aquatic life with long lasting effects.

PRECAUTION PHRASES

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
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.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

No information

3. Composition/Information On Ingredients**3.2 Mixtures****Hazardous ingredients**

<u>Name According to EEC</u>	<u>EINEC No.</u>	<u>CAS-No.</u>	<u>%</u>	<u>Classifications</u>	
tetraethyl n, n'-(methylenedicyclohexane-4,1,-diyl) bis-dl-aspartate	429-270-1	136210-30-5	50 - <75	H317-412	Aquatic Chronic 3, Skin Sens. 1
dipropylene glycol dimethyl ether	601-045-4	111109-77-4	10 - <25	H315-319	Eye Irrit. 2, Skin Irrit. 2
2-Butenedioic acid (2E)-, 1,4-diethyl ester	210-819-7	623-91-6	1.0 - <2.5	H302-371	Acute Tox. 4 Oral, STOT SE 2

Bis(4-(1,2-bis (ethoxycarbonyl) ethylamino)-3- methylcyclohexyl) methane	412-060-9	136210-32-7	1.0 - <2.5
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1,3-benzenediol,4-[4,6- bis(2,4	604-910-4	153519-44-9	1.0 - <2.5	H410	Aquatic Chronic 1
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CAS-No.**M-Factors**

136210-30-5
111109-77-4
623-91-6
136210-32-7
153519-44-9

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

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. If eye irritation persists, consult a specialist.

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

Harmful if swallowed. Irritating to skin. May cause sensitization by inhalation. May cause sensitization by skin contact.

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.

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.

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

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 8 and 13 for further information.

7. Handling and Storage**7.1 Precautions for safe handling**

INSTRUCTIONS FOR SAFE HANDLING: Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.

PROTECTION AND HYGIENE MEASURES: 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: No Information

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)

No specific advice for end use available.

8. Exposure Controls/Personal Protection**8.1 Control parameters****Ingredients with Occupational Exposure Limits (US)**

<u>Name</u>	<u>CAS-No.</u>	<u>ACGIH TWA</u>	<u>ACGIH STEL</u>	<u>ACGIH Ceiling</u>
tetraethyl n, n'-(methylenedicyclohexane-4,1,-diyl) bis-dl-aspartate	136210-30-5			
dipropylene glycol dimethyl ether	111109-77-4			
2-Butenedioic acid (2E)-, 1,4-diethyl ester	623-91-6			
Bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	136210-32-7			
1,3-benzenediol,4-[4,6-bis(2,4	153519-44-9			

<u>Name</u>	<u>CAS-No.</u>	<u>OSHA PEL</u>	<u>OSHA STEL</u>
tetraethyl n, n'-(methylenedicyclohexane-4,1,-diyl) bis-dl-aspartate	136210-30-5		
dipropylene glycol dimethyl ether	111109-77-4		
2-Butenedioic acid (2E)-, 1,4-diethyl ester	623-91-6		
Bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	136210-32-7		

1,3-benzenediol,4-[4,6-bis(2,4 153519-44-9

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.**8.2 Exposure controls****Personal Protection****RESPIRATORY PROTECTION:** Respirator with a vapor filter.**EYE PROTECTION:** Ensure that eyewash stations and safety showers are close to the workstation location. Safety glasses. Safety goggles.**HAND PROTECTION:** Impervious 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.**9. Physical and Chemical Properties****9.1 Information on basic physical and chemical properties**

Appearance:	Clear / Yellow resin
Physical State	Liquid
Odor	Mild
Odor threshold	Not determined
pH	Non-aqueous
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	120 - N.D.
Flash Point, (°F / °C)	>201F / >94C
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	Not determined
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	28770 cps
Explosive properties	Not determined
Oxidising properties	Not determined

9.2 Other information

VOC Content g/l:	90
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)	1.056

10. Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

No Information

10.5 Incompatible materials

Strong oxidizing agents. Acids and bases.

10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours. Alcohols. Exothermic reaction. Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No information

Inhalation LC50: No information

Irritation: No information available.

Corrosivity: No information available.

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>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>	<u>Gas LC50</u>	<u>Dust/Mist LC50</u>
136210-30-5	tetraethyl n, n'- (methylenedicyclohexane-4,1,- diyl) bis-di-aspartate	>2000 mg/kg (rat)	>2000 mg/kg (rat)	>4224 mg/m ³ , 4 hr. (rat)	0.000	0.000

623-91-6	2-Butenedioic acid (2E)-, 1,4-diethyl ester	1780 mg/kg (rat)	0.000	0.000
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Additional Information:

No Information

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: No information

12.6 Other adverse effects: No information

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
136210-30-5	tetraethyl n, n'-(methylenedicyclohexane-4,1,-diyl) bis-dl-aspartate	88.6 mg/l	113 mg/l	66 mg/l (zebra fish)
111109-77-4	dipropylene glycol dimethyl ether	No information	No information	
623-91-6	2-Butenedioic acid (2E)-, 1,4-diethyl ester	No information	No information	
136210-32-7	Bis(4-(1,2-bis(ethoxycarbonyl)ethylamino)-3-methylcyclohexyl)methane	No information	No information	
153519-44-9	1,3-benzenediol,4-[4,6-bis(2,4	No information	No information	

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.

14. Transport Information

14.1 UN number	N/A
14.2 UN proper shipping name	Not regulated
Technical name	Not applicable
14.3 Transport hazard class(es)	N/A
Subsidiary shipping hazard	Not applicable
14.4 Packing group	N/A
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	Not applicable
EmS-No.:	N/A
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

15. Regulatory Information

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

U.S. Federal Regulations: As follows -

CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Skin Corrosion or Irritation, Respiratory or Skin Sensitization, Serious eye damage or eye irritation

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

No SARA 313 substances exist in this product above de minimis concentrations.

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

<u>Chemical Name</u>	<u>CAS-No.</u>
dipropylene glycol dimethyl ether	111109-77-4

U.S. Clean Air Act:

EPA Coating Category:	Industrial Maintenance Coating
EPA VOC Content Limit (g/l):	450
Product VOC Content (g/l)	90
Thinning Recommendations:	None
Application Recommendations:	For professional use only.

* As per the federal EPA definition for coating categories in 40 CFR 59.401.

** Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

U.S. State Regulations: As follows -

New Jersey Right-to-Know:

The following materials are non-hazardous, but are among the top five components in this product.

<u>Chemical Name</u>	<u>CAS-No.</u>
bis (2-ethylhexyl) terephthalate	6422-86-2
Secondary Amine	800963-52925
hydrophobic silicon dioxide	67762-90-7

Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

<u>Chemical Name</u>	<u>CAS-No.</u>
bis (2-ethylhexyl) terephthalate	6422-86-2
Secondary Amine	800963-52925
hydrophobic silicon dioxide	67762-90-7

California Proposition 65:

No Proposition 65 Chemicals exist in this product.

International Regulations: As follows -*** Canadian DSL:**

All chemical ingredients included on inventory or exempt.

15.2 Chemical Safety Assessment:

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

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

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H371	May cause damage to organs.
H410	Very 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) :

- 03 - Composition/Information On Ingredients
- 09 - Physical and Chemical Properties
- 15 - Regulatory Information

Revision Statement(s) Changed

This Safety Data Sheet (SDS) has been revised to meet updated national hazard communication standards which have adopted the provisions of the UN GHS system. There have been both formatting and content changes based on the GHS classification (if applicable), Please review each section of the SDS for specific changes. This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes.

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.
- Joint Research Centre in Ispra, Italy.
- Regulation (EC) 1272/2008 with subsequent amendments.
- Regulation (EC) 1272/2006 with subsequent amendments.
- Commission Regulation (EU) 2020/878
- EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"
- Safety Data Sheet from raw material supplier
- The classification declared in sec. 2.2 is based on the calculation methods set out in Annex I and Annex II of the CLP Reg. 1272/2008 on the composition of the formula.

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/m ³	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
IMO	International Maritime Organization
Note P:	The classification as a carcinogen or mutagen need not apply; the substance contains less than 0,1 % w/w benzene
Note 10:	The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

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.

