Endurable Concrete Armor-Component 1

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 08/23/2019 Revision date: n/a Printed: 08/23/2019 Version: 1.0

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

1.1. Product identifier

Product name : Endurable Concrete Armor-Component 1

Product code : n/a

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

Use of the substance/mixture : Industrial use
Construction coating

Use advised against : None identified

1.3. Details of the supplier of the safety data sheet

HDIP Inc.
20407 Christmas Rdg.
Bend, OR 97702
Tel: 800-910-3120

1.4. Emergency telephone number

Emergency number : 800-910-3120
Mon - Fri 8:30- 4:30 (PST)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

SKIN IRRITATION - Category 2

EYE IRRITATION - Category 2A

SKIN SENSITISATION - Category 1

2.2. GHS label elements

Hazard pictograms:

Signal word: Warning

Hazard statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

Precautionary statements:

General: Not applicable

2.3. Prevention:

Prevention	:	Wear protective gloves. Wear eye or face protection. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
Response: IF ON SKIN	:	Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.
Response: IF IN EYES	:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	:	Not applicable.
Disposal	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.4. Other hazards which do not result in classification:

None known.

SECTION 3: Composition/information on ingredients

3.1. Substances/Mixture:

Mixture

Name	CAS	%
Solid Epoxy Resin (Proprietary)		50-75
Diacetone Alcohol	123-42-2	0-5
2-Propanol, 1-butoxy	5131-66-8	0-3
Oxirane, Mono[(C12-14-alkyloxy)methyl] Derivs.	68609-97-2	
1-Methoxy-2-Propanol	107-98-2	
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	160875-66-1	

***Occupational exposure limits, if available, are listed in Section 8.**

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

First-aid measures after skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

First-aid measures after eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

First-aid measures after ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2. Indication of immediate medical attention and special treatment needed, if necessary

4.3. Notes to physician:

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

4.4. Specific treatments:

No specific treatment.

4.5. Protection of first aid personnel:

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.

4.6. See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the chemical: In a fire or if heated, a pressure increase will occur and the container may burst.

5.3. Hazardous thermal decomposition products:

Decomposition products may include the following materials: carbon dioxide carbon monoxide.

5.4. Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders:	:	For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

See also the information in "For non-emergency personnel".

6.2. Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Methods and material for containment and cleaning up	:	Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Large spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13 of SDS). Dispose of via a licensed waste disposal contractor.

Contaminated absorbent material may pose the same hazard as the spilled product.

Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures	:	Put on appropriate personal protective equipment (see section 8 of SDS). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Conditions for safe storage, including any incompatibilities	:	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solid Epoxy Resin (Proprietary)	None.
2-Propanol, 1-butoxy	None.
Diacetone Alcohol	ACGIH TLV (1994-09-01) TWA 238 mg/m3 50 ppm OSHA PEL 1989 (1989-03-01) TWA 240 mg/m3 50 ppm OSHA PEL (1993-06-30) TWA 240 mg/m3 50 ppm NIOSH REL (1994-06-01) TWA - TLV and PEL 240 mg/m3 50 ppm
Oxirane, Mono[(C12-14-alkyloxy)methyl] Derivs.	None.
1-Methoxy-2-Propanol	ACGIH TLV (2013-06-14) TWA 184 mg/m3 50 ppm STEL 369 mg/m3 100 ppm OSHA PEL 1989 (1989-03-01) TWA 360 mg/m3 100 ppm STEL 540 mg/m3 150 ppm NIOSH REL (1994-06-01) TWA - TLV and PEL 360 mg/m3 100 ppm STEL 540 mg/m3 150 ppm
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	None.
2-Propanol, 1-butoxy	None.

Diacetone Alcohol	ACGIH TLV (1994-09-01) TWA 238 mg/m3 50 ppm OSHA PEL 1989 (1989-03-01) TWA 240 mg/m3 50 ppm OSHA PEL (1993-06-30) TWA 240 mg/m3 50 ppm
	NIOSH REL (1994-06-01) TWA - TLV and PEL 240 mg/m3 50 ppm
Solid Epoxy Resin (Proprietary)	None.

8.2. Exposure controls

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	White
Odor	:	Mild
Odor threshold	:	No data available
pH	:	7.0-9.0
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	43.4 °C (110.1 °F) (ASTM D 93) Product does not sustain combustion.
Burning time	:	No data available
Burning rate	:	No data available

Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Lower and upper explosive (flammable) limits	:	Lower: Not available Upper: Not available
Vapor pressure	:	No data available
Vapor density	:	No data available
Relative density	:	1.0725 @ 25 °C (77 °F)
Solubility	:	No data available
Solubility in water	:	Miscible
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
SADT	:	No data available
Viscosity: Dynamic	:	3 - 6 Pa·s @ 25 °C (77 °F)
Kinematic	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

The product is stable.

10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid

No specific data.

10.5. Incompatible materials

No specific data.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Information on toxicological effects

11.1. Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Oxirane, Mono[(C12-14-alkyloxy)methyl] Derivs.	LD50 Oral	Rat	17,100 mg/kg	—
1-Methoxy-2-Propanol	LD50 Oral	Rat	3,739 mg/kg	—
	LC50 Inhalation	Rat		5 hr
	LD50 Dermal	Rabbit	13,536 mg/kg	—
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	LD50 Oral	Rat	500 - 2,000 mg/kg	—
2-Propanol, 1-butoxy	LD50 Oral	Rat-female	> 2,124 mg/kg	—
	LD50 Oral	Rat-male	> 2,612 mg/kg	—
	LC50 Inhalation	Rat	> 3,412 mg/l	4 hr
	LD50 Dermal	Rat	> 2,000 mg/kg	—
	LD50 Dermal	Rabbit	3,100 mg/kg	—
Diacetone Alcohol	LD50 Oral	Rat	4,000 mg/kg	—
	LD50 Oral	Rat	2,520 mg/kg	—
	LD50 Dermal	Rabbit	13,500 mg/kg	—
Solid Epoxy Resin (Proprietary)	LD50 Oral	Rat	> 2,000 mg/kg	—
	LD50 Dermal	Rat	> 2,000 mg/kg	—

Conclusion/Summary: Not available

11.2. Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Oxirane, Mono[(C12-14-alkyloxy)methyl] Derivs.	Skin - Primary dermal irritation index (PDII) OTS 798.4470 Acute Dermal Irritation	Rabbit	4.1	24 hrs	72 hrs
	Skin-	Rabbit	5.75	24 hrs	72 hrs
	Primary dermal irritation index (PDII) 404 Acute Dermal Irritation/Corrosion	—	—	—	—
	eyes - Cornea opacity 405 Acute Eye Irritation/Corrosion	Rabbit	2	—	1-24 hrs
	Skin - Moderate irritant	Rabbit	—	24 hrs	—
Diacetone Alcohol	eyes - Severe irritant	Rabbit	—	24 hrs	—
	Skin - Mild irritant	Rabbit	—	—	—
	eyes - Severe irritant	Rabbit	—	—	—

Conclusion/Summary

Skin : Not available

Eyes : Not available

Respiratory : Not available

Sensitization

Conclusion/Summary

Skin : Not available

Respiratory : Not available

Mutagenicity

Conclusion/Summary : Not available

Carcinogenicity

Conclusion/Summary : Not available

Reproductive toxicity

Conclusion/Summary : Not available

Teratogenicity

Conclusion/Summary : Not available

11.3. Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
1-Methoxy-2-Propanol	Category 3	—	Narcotic effects
Poly(oxy-1,2-ethanediyl), .alpha.-(2-propylheptyl)-.omega.-hydroxy-	Category 3	—	Respiratory tract irritation
2-Propanol, 1-butoxy	Category 3	—	Respiratory tract irritation
Diacetone Alcohol	Category 3	—	Respiratory tract irritation

Specific target organ toxicity (repeated exposure): Not available

Aspiration hazard: Not available

Information on likely routes of exposure: Not available

11.4. Potential acute health effects

Eye contact: Causes serious eye irritation.

Inhalation: No known significant effects or critical hazards.

Skin contact: Causes skin irritation. May cause an allergic skin reaction.

Ingestion: No known significant effects or critical hazards.

11.5. Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following: pain or irritation watering redness

Inhalation: No specific data.

Skin contact: Adverse symptoms may include the following: irritation redness

Ingestion: No specific data.

11.6. Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects: Not available

Potential delayed effects: Not available

Long term exposure

Potential immediate effects: Not available

Potential delayed effects: Not available

Potential chronic health effects

Conclusion/Summary: Not available

General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	20,247.2 mg/kg

SECTION 12: Ecological information

12.1. Toxicity

Product/ingredient name	Result	Species	Exposure
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	Acute LC50 > 1.8 g/l - 203 Fish, Acute Toxicity Test	Fish - Rainbow trout,donaldson trout	96 h
	Acute LC50 > 5.0 g/l - 203 Fish, Acute Toxicity Test	Fish - Bluegill	96 h

	Acute EC50 7.2 mg/l - 202 Daphnia sp. Acute Immobilization Test and Reproduction Test	Aquatic invertebrates. Water flea	48 h
	Acute EC50 844 mg/l - 201 Alga, Growth Inhibition Test	Aquatic plants - Algae	72 h
4-hydroxy-4-methylpentan-2-one	Acute LC50 420,000 µg/l Fresh water	Fish - Fish	96 h

Conclusion/Summary: Not available.

12.2. Persistence/degradability

Conclusion/Summary: Not available.

12.3. Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Oxirane, Mono[(C12-14-alkyloxy)methyl] Derivs.	3.77	160 - 263 160.00	Low
2-Propanol, 1-butoxy	1.15	—	Low
Diacetone Alcohol	-0.14 - 1.03	—	Low

12.4. Mobility in soil

Soil/water partition coefficient (KOC): Not available

12.5. Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

14.1. International transport regulations

Regulatory information	UN/NA number	Proper shipping name	Classes/*PG	Reportable Quantity (RQ)
CFR		Non-regulated		
TDG		Non-regulated		
IMO/IMDG		Non-regulated		
IATA (Cargo)		Non-regulated		

*PG : Packing group

14.2. Special precautions for user:

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

SECTION 15: Regulatory information

15.1. US Federal regulations

Section 15. Regulatory information

United States

U.S. Federal regulations:

United States - TSCA 12(b) - Chemical export notification: None required.

United States - TSCA 5α2 - Final significant new use rules: Not listed

United States - TSCA 5α2 - Proposed significant new use rules: Not listed

United States - TSCA 5(e) - Substances consent order: Not listed

SARA 311/312 Classification - Immediate (acute) health hazard

California Prop. 65:

WARNING: This product contains a chemical known to the State of California to cause cancer., WARNING: This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

United States inventory (TSCA 8b): All components are listed or exempted.

Trade Secret: The claim for trade secret has been filed in Canada under HMIRC.

15.2. International regulations

International lists:

Australia inventory (AICS): Not determined.

Canada inventory: At least one component is not listed in DSL but all such components are listed in NDSL.

Japan inventory: Not determined.

China inventory (IECSC): Not determined.

Korea inventory: All components are listed or exempted.

New Zealand Inventory (NZIoC): Not determined.

Philippines inventory (PICCS): Not determined.

United States inventory (TSCA 8b): All components are listed or exempted.

Taiwan inventory (CSNN): All components are listed or exempted.

15.3. Additional information:

One or more components have been granted exemption status for the Chinese Inventory (IECSC). Volume and validity restrictions may apply. Check with supplier for update.

SECTION 16: Other information

Indication of changes	:	Not applicable
Revision date	:	Not applicable

Hazardous Material Information System III (U.S.A.) :

Health: 2

Flammability: 1

Physical hazards: 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA).

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

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

Endurable Concrete Armor (Component 2)

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 08/05/2019 Revision date: 08/22/2019 Printed: 08/22/2019 Version: 2.0

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

1.1. Product identifier

Product name : Endurable Concrete Armor (Component 2)

Product code : n/a

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

Use of the substance/mixture : Industrial use
Construction material

Use advised against : None identified

1.3. Details of the supplier of the safety data sheet

HDIP Inc.
20407 Christmas Rdg.
Bend, OR 97702
Tel: 800-910-3120

1.4. Emergency telephone number

Emergency number : 800-910-3120
Mon - Fri 8:30- 4:30 (PST)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Skin Corrosion/ Irritation, Category 2
Sensitization, Category 1
Eye Damage/Irritation, Category 1

2.2. Label elements

Labelling

Hazard pictograms :

Signal word : Danger

Hazard statements : Causes skin irritation
Causes serious eye damage
May cause an allergic skin reaction

Precautionary statements : Avoid breathing mist/ vapors/ spray.
Contaminated work clothing must not be allowed out of the workplace
Wash face and hands thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
If on skin: Wash with plenty of water
Wash contaminated clothing before reuse
If skin irritation or rash occurs: Get medical advice/attention
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
Take off contaminated clothing and wash it before reuse.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

Other hazards which do not result in : None known

classification

2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	%
Cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-	(CAS No) 2855-13-2	< 5.0

The specific chemical\ component identities and/or the exact component percentages of this material may be withheld as trade secrets.
This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1).
Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Causes severe damage in contact with eyes. May cause allergic skin reaction. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use fire-extinguishing media appropriate for surrounding materials. Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Use of water spray when fighting fire may be insufficient.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Most vapors are heavier than air. They will spread along ground and collect in low or confined areas.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Special danger of slipping by leaking/spilling product. Avoid contact with eyes. Avoid breathing mist and spray. Equip cleanup crew with proper protection.

6.2. Environmental precautions

Prevent entry to public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Large spills: Dike to prevent further leakage. Use dry sand to contain the flow of chemical.

Small spills : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect all waste in suitable and labelled containers and dispose according to local legislation. Store away from other materials. Ensure all national/local regulations are observed.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes. Avoiding breathing spray or mists. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well-ventilated place. Keep container tightly closed.

Incompatible materials : Strong oxidizing agents. Acids.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Handle in accordance with good industrial hygiene and safety practices. Avoid all unnecessary exposure. For certain operations, additional Personal Protection Equipment (PPE) may be required.

Hand protection : Wear appropriate protective gloves and clothing to prevent skin exposure.

Eye protection : Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133.

Skin and body protection : In case of repeated or prolonged exposure : Personal protective clothing should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Milky liquid
Color	:	Yellow
Odor	:	Mild odor
Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not applicable
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity	:	No data available
Explosive properties	:	Not applicable
Oxidising properties	:	Not applicable
Explosive limits	:	Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage condition

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Protect product from freezing.

10.5. Incompatible materials

Strong oxidizing agents. Acids.

10.6. Hazardous decomposition products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO_2), Ammonia

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Isophorone diamine (2855-13-2)	
LD50 oral rat	1,030 mg/kg

ATE > 5,000 mg/kg

Acute toxicity	:	Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	:	Causes skin irritation
Serious eye damage/irritation	:	Causes serious eye damage
Respiratory or skin sensitization	:	May cause an allergic skin reaction
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	Not classified (No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, NTP, ACGIH, or listed on OSHA's list of regulated carcinogens.)
Reproductive toxicity	:	Not classified (Based on available data, the classification criteria are not met)
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)
Symptoms/injuries after eye contact	:	No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer : No additional information available

Effect on the global warming : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with applicable local, national and international regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - NOTE: This product has NOT evaluated against the latest requirements of the California Proposition 65 to meet the safe harbor warning requirements introduced by The office of Environmental Health Hazards Assessment (OEHHA), during its OSHA hazards classification evaluation.

Isophorone diamine (2855-13-2)
New Jersey Worker and Community RTK

SECTION 16: Other information

Indication of changes : 2-Hazards identification
3-Composition/information on ingredients
4-First aid measures
8-Exposure controls/personal protection
11-Toxicological information
14-Transport information

Revision date : 08/22/2019

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