Safety Data Sheet

Section 1: Identification of the Product/Company

Product Identifier:

Product Name: EPOXY HARDENER

Product Code:

REACH registration notes Polymer. All starting substances and monomers are REACH compliant.

Relevant identified uses of the substance or mixture

Recommended use:

Curing agent for Epoxy resins

Uses advised against:

No additional information available

Details of the supplier of the safety data sheet

Manufacturer:

Super Stone Inc.
1251 Burlington Street
Opa-Locka, FL 33054
United States
www.superstone.com

Telephone (General) (305) 681-3561

Emergency telephone number

Manufacturer: (800) 424-9300 (Chemtrec) USA
+ 1 (703) 527-3887 (Chemtrec) International

Section 2: Hazards Identification

2.1 Classification of the substance or mixture

GHS-US classification

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Acute Tox. 4 - H302 Acute Tox. 3 - H331 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 1B - H360F STOT SE 3 - H335
Environmental hazards	Aquatic Chronic 2 - H411

2.2 Label elements

GHS-US labeling

The substance is classified and labeled according to the Globally Harmonized System (GHS).

Hazard Pictograms (GHS-US)

Signal words (GHS-US): Danger

Hazards statements (GHS-US):

H302 Harmful if swallowed.
H331 Toxic if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H360F May damage fertility.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS-US)

Prevention:

P261 Avoid breathing vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/ attention.

P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

Contains:

TOFA, reaction products with TEPA, Di-Ethylene Triamine Epoxy Adduct, 2,2'-iminodiethylamine, 4,4'-isopropylidenediphenol, Amines, polyethylenepoly-, tetraethylenepentamine fraction

2.3 Other hazards

This product does not contain any substances classified as PBT or vPvB.

Section 3: Composition/information on ingredients

3.2 Mixtures

TOFA, reaction products with TEPA	**60-100%**
CAS number: 68953-36-6 EC number: 273-201-6	
Classification Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
Di-Ethylene Triamine Epoxy Adduct	**10-30%**
CAS number: 31326-29- 1 EC number: 500-072-8	
Classification Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335	
2,2'-iminodiethylamine	**5-10%**
CAS number: 111-40-0 EC number: 203-865-4 REACH registration number: 01-2119473793-27-XXXX	
Classification Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318	

STOT SE 3 - H335	
4,4'-isopropylidenediphenol	**1-5%**
CAS number: 80-05-7 EC number: 201-245-8	REACH registration number: 01-2119457856-23-XXXX
Substance of very high concern (SVHC).	
Classification Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 1B - H360F STOT SE 3 - H335 Aquatic Chronic 2 - H411	
Amines, polyethylenepoly-, tetraethylenepentamine fraction	**1-5%**
CAS number: 90640-66-7 EC number: 292-587-7	REACH registration number: 01-2119487290-37-XXXX
Classification Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments This product contains a substance that is a SVHC.

Section 4: First aid measures

4.1. Description of first aid measures

General information Remove affected person from source of contamination. Rinse immediately with plenty of water. While rinsing, remove clothing not adhering to the affected area. Keep affected person under observation. Get medical attention if any discomfort continues. Never give anything by mouth to an unconscious person. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. First aid personnel should wear appropriate protective equipment during any rescue. Consult a physician for specific advice. Show this Safety Data Sheet to the medical personnel. Treat symptomatically..

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. For breathing difficulties, oxygen may be necessary. Get medical attention if symptoms are severe or persist.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if a large quantity has been ingested. Get medical attention if symptoms are severe or persist.
Skin contact	Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. Care should be taken to avoid contact with contaminants when removing contaminated clothing. Wash skin thoroughly with soap and water or use an approved skin cleanser. Get medical attention if symptoms are severe or persist after washing. In the event of any sensitisation symptoms developing, ensure further exposure is avoided. Use suitable lotion to moisturise skin. Consult a physician for specific advice.
Eye contact	Do not rub eye. Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Keep affected person under observation. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing. Consult a physician for specific advice.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. The product contains a sensitising substance. See Section 11 for additional information on health hazards. Treat symptomatically.
Inhalation	The product is considered to be a low hazard under normal conditions of use.
Ingestion	No specific symptoms known. May cause discomfort if swallowed.
Skin contact	Causes skin irritation. The product contains a sensitising substance. May cause sensitization or allergic reactions in sensitive individuals.
Eye contact	The product is irritating to eyes and skin. Risk of serious damage to eyes.

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

Specific treatments Treat symptomatically.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Foam. Carbon dioxide or dry powder. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards None under normal conditions.

Hazardous combustion products

Thermal decomposition or combustion products may include the following substances:
Carbon dioxide (CO2). Carbon monoxide (CO). Nitrous gases (NOx).

5.3. Advice for firefighters

Protective actions during firefighting

Do not use water jet as an extinguisher, as this will spread the fire. Avoid breathing fire gases or vapours. Contain and collect extinguishing water. Control run-off water by containing and keeping it out of sewers and watercourses. Do not enter storage areas or confined spaces unless adequately ventilated. If risk of water pollution occurs, notify appropriate authorities. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Move containers from fire area if it can be done without risk. No action shall be taken without appropriate training or involving any personal risk. Use water spray to reduce vapours. Ventilate closed spaces before entering them. Containers close to fire should be removed or cooled with water. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out.

Special protective equipment for firefighters

Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents. Wear positive pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:

Avoid contact with contaminated tools and objects. Avoid contact with eyes and prolonged skin contact. Avoid inhalation of vapours and contact with skin and eyes. Contact with hot product can cause serious thermal burns. Do not enter storage areas or confined spaces unless adequately ventilated. Do not handle broken packages without protective equipment. Ensure procedures and training for emergency decontamination and disposal are in place. Ensure suitable respiratory protection is worn during removal of spillages in confined areas. Follow precautions for safe handling described in this safety data sheet. For personal protection, see Section 8. If ventilation is inadequate, suitable respiratory protection must be worn. Keep unnecessary and unprotected personnel away from the spillage. No action shall be taken without appropriate training or involving any personal risk. Take care as floors and other surfaces may become slippery. Treat the spilled material according to the instructions in the clean-up section. Wash thoroughly after dealing with a spillage. No smoking, sparks, flames or other sources of ignition near spillage. Take precautionary measures against static discharges.

For non-emergency personnel

Keep unnecessary and unprotected personnel away from the spillage. Follow precautions for safe handling described in this safety data sheet. Ensure procedures and training for emergency decontamination and disposal are in place. For personal protection, see Section 8.

For emergency responders

Keep unnecessary and unprotected personnel away from the spillage. For personal protection, see Section 8.

6.2. Environmental precautions

Avoid release to the environment. Avoid discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses. Avoid discharge into drains. Avoid spreading dust or contaminated materials. Contain spillage with sand, earth or other suitable non-combustible material. Environmental Manager must be informed of all major spillages. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

When handling waste, the safety precautions applying to handling of the product should be considered. Absorb in vermiculite, dry sand or earth and place into containers. Do not empty

into drains. Flush away spillage with plenty of water.

6.4. Reference to other sections

For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

Section 7: Handling and storage

7.1 Precautions for safe handling

Usage precautions

Provide adequate ventilation. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours and contact with skin and eyes. Contact with hot product can cause serious thermal burns. Contaminated rags and cloths must be put in fireproof containers for disposal. Ensure procedures and training for emergency decontamination and disposal are in place. During curing, the product will release small quantities of irritating
vapours.

Advice on general occupational hygiene

Contaminated work clothing should not be allowed out of the workplace. Change work clothing daily before leaving workplace. Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Remove contaminated clothing and protective equipment before entering eating areas. Promptly remove any clothing that becomes contaminated. Care should be taken to avoid contact with contaminants when removing contaminated clothing. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Do not smoke in work area. Do not eat, drink or smoke when using this product. Eye wash facilities and emergency shower must be available when handling this product. Use appropriate skin cream to prevent drying of skin. Wash hands thoroughly after handling. Wash promptly with soap and water if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Persons susceptible to allergic reactions should not handle this product.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions:

Store at room temperature. Protect from freezing and direct sunlight. Keep away from food and drink. Keep container tightly closed. Keep containers upright. Use appropriate containment to avoid environmental contamination. Store away from incompatible materials (see Section 10).

Storage class:

Miscellaneous hazardous material storage.

7.3. Specific end use(s)

Specific end use(s):

The identified uses for this product are detailed in Section 1.2.

Usage description

Specific uses are identified in section 1.2, for further information refer to the technical data sheet.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits:

Chemical Name	
2,2'-iminodiethylamine	
4,4'-isopropylidenediphenol	Long-term exposure limit (8-hour TWA): WEL 2 mg/m³ WEL = Workplace Exposure Limit. Sk = Can be absorbed through the skin.
2,2'-iminodiethylamine (CAS: 111-40-0) **DNEL** Workers - Inhalation; Short term systemic effects: 92.1 mg/m³ Workers - Inhalation; Short term local effects: 2.6 mg/m³ Workers - Dermal; Short term systemic effects: 11.4 mg/kg/day Workers - Inhalation; Long term systemic effects: 15.4 mg/m³ Workers - Dermal; Long term local effects: 1.1 mg/cm² Workers - Inhalation; Long term local effects: 0.87 mg/m³ **PNEC** - Fresh water; 0.56 mg/l - marine water; 0.056 mg/l - Sediment (Freshwater); 1072 mg/kg - Sediment (Marinewater); 107.2 mg/kg - STP; 6 mg/l - Soil; 214 mg/kg	
4,4'-isopropylidenediphenol (CAS: 80-05-7) **DNEL** General population - Oral; Long term systemic effects: 0.05 mg/kg	

General population - Dermal; Long term systemic effects: 0.7 mg/kg General population - Inhalation; Long term : 5 mg/m³ **PNEC** General population - ; Long term 13800 mg/kg

8.2 Exposure controls

Appropriate engineering controls:

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist. This product is not to be used under conditions of poor ventilation. Personal, workplace environment 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. Ensure the ventilation system is regularly maintained and tested.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. To protect hands from chemicals, gloves should comply with European Standard EN374. It is recommended that gloves are made of the following material: Nitrile rubber. Neoprene. Frequent changes are recommended.

Other skin and body protection

Avoid contact with skin. Wear suitable coveralls to prevent exposure to the skin. Refer to European Standard EN 1149 for information on material and design requirements and test methods. Provide eyewash station and safety shower.

Hygiene measures

Good personal hygiene procedures should be implemented. Wash after use and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Provide eyewash station and safety shower. Care should be taken to avoid contact with contaminants when removing contaminated clothing. Contaminated work clothing should not be allowed out of the

workplace. Wash contaminated clothing before reuse.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140. Gas and combination filter cartridges should comply with European Standard EN14387. Particulate filters should comply with European Standard EN143. Powered filtering helmets or hoods should comply with European Standard EN12941. Disposable filtering half mask respirators should comply with European Standard EN149 or EN405. This represents the minimum standard required and better specification protection should be used if available.

Thermal hazards

Contact with hot product can cause serious thermal burns. If there is a risk of contact with hot product, all protective equipment worn should be suitable for use with high temperatures. To protect hands from high temperatures, gloves should comply with European Standard EN407.

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. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Amber.
Odour	Irritating.
pH	Aqueous solutions are basic.
Initial boiling point and range	>204°C
Flash point	195°C Closed cup.
Relative density	0.95
Viscosity	5 P @ 25°C

9.2. Other information

Other information None.

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity Acids Strong oxidising agents.

10.2 Chemical Stability

Stability Stable under the prescribed storage conditions.

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

Avoid freezing. Avoid exposure to high temperatures or direct sunlight. Avoid the accumulation of vapours in low or confined areas. Containers can burst violently or explode when heated, due to excessive pressure build-up.

10.5. Incompatible materials

Materials to avoid Acids - oxidising. Avoid contact with strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products

Does not decompose when used and stored as recommended. Heating may generate the following products: Carbon dioxide (CO2). Carbon monoxide (CO). Nitrous gases (NOx).

Section 11: Toxicological information

11.1 Information on toxicological effects

TOXICITY MEASURES:

Toxicological effects Toxicity data is not available for this product, toxicity data on the hazardous substances listed
in section 3 are listed below where available.

Acute toxicity - oral

ATE oral (mg/kg) 1,911.5

Acute toxicity - dermal

ATE dermal (mg/kg) 9,089.03

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l) 0.55

General information No specific health hazards known.
Toxicological information on ingredients.

Di-Ethylene Triamine Epoxy Adduct
Acute toxicity - oral
ATE oral (mg/kg) 500.0
2,2'-iminodiethylamine
Acute toxicity - oral
Acute toxicity oral (LD_{50} mg/kg) 1,620.0
Species Rat
ATE oral (mg/kg) 500.0
Acute toxicity - dermal
Acute toxicity dermal (LD_{50} mg/kg) 1,045.0
Species Rabbit
ATE dermal (mg/kg) 1,100.0
Acute toxicity - inhalation
Acute toxicity inhalation
(LC_{50} dust/mist mg/l) 0.07
Species Rat
ATE inhalation
(dusts/mists mg/l) 0.05
Skin sensitisation
Skin sensitisation Sensitising.
Carcinogenicity Test results on Mouse were negative
Target organ for carcinogenicity
Skin
Reproductive toxicity Reproductive toxicity - fertility
Fertility - NOAEL 30 mg/kg/day, ,
Reproductive toxicity – development Developmental toxicity: - NOAEL: 30 mg/kg/day, ,
Specific target organ toxicity - single exposure
STOT - single exposure Category 3
Specific target organ toxicity - repeated exposure
STOT - repeated exposure NOAEL 70 mg/kg/day, Oral, NOAEL 114 mg/kg/day, Dermal, NOEC 550 mg/m^3, Vapour,
4,4'-isopropylidenediphenol
Acute toxicity - oral
Acute toxicity oral (LD_{50} mg/kg) 3,250.0
Species Rat
Notes (oral LD_{50}) LD50 >2000 mg/kg (Rat)

ATE oral (mg/kg) 3,250.0
Acute toxicity - dermal
Acute toxicity dermal (LD_{50} mg/kg) 3,000.0
Species Rabbit
Notes (dermal LD_{50}) LD50 >2000 mg/kg (Rabbit)
ATE dermal (mg/kg) 3,000.0
Acute toxicity – inhalation Acute toxicity inhalation (LC_{50} dust/mist mg/l) 0.17
Species Rat
Notes (inhalation LC_{50}) LC50: >5.01 mg/l
ATE inhalation (dusts/mists mg/l) 29.1
Skin sensitization Skin sensitisation Sensitising.
Amines, polyethylenepoly-, tetraethylenepentamine fraction
Acute toxicity - oral
ATE oral (mg/kg) 500.0
Acute toxicity – dermal ATE dermal (mg/kg) 1,100.0
Reproductive toxicity Reproductive toxicity - fertility
Data lacking.

Section 12: Ecological information

Ecotoxicity Ecotoxicity data is not available for this product, toxicity data on the hazardous substance
12.1 Toxicity:
Ecological information on ingredients.
2,2'-iminodiethylamine
Acute aquatic toxicity
Acute toxicity - fish LC_{50}, 96 hours: 430 mg/l, Fish NOEC, 28 days: 10 mg/l, Fish
Acute toxicity – aquatic invertebrates EC_{50}, 48 hours: 17 mg/l, Daphnia magna NOEC, 21 days: 5.6 mg/l, Daphnia magna
Acute toxicity – aquatic plants EC_{50}, 72 hours: 1164 mg/l, Algae NOEC, 72 hours: 10 mg/l, Algae
Acute toxicity – microorganisms EC_{50}, 3 hours: 32.7 mg/l, NOEC, 3 hours: 6 mg/l,
4,4'-isopropylidenediphenol
Acute aquatic toxicity
Acute toxicity - fish LC_{50}, 96 hours: 4.6 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity – aquatic invertebrates EC_{50}, 48 hours: 3.9 mg/l, Daphnia magna
Acute toxicity – aquatic plants EC_{50}, 72 hours: 2.73 mg/l, Algae
12.2. Persistence and degradability
Ecological information on ingredients.
2,2'-iminodiethylamine
Persistence and degradability
The product is readily biodegradable.

Phototransformation - Photolysis 50: 0.11 days
Biodegradation - Degradation 87: 21 days - Half-life : 28 days
4,4'-isopropylidenediphenol
Persistence and degradability The product is not readily biodegradable.
12.3. Bioaccumulative potential
Ecological information on ingredients.
2,2'-iminodiethylamine
Bioaccumulative potential Low bio-accumulation can be estimated because of low log Pow. BCF: 0.3-6.3, Partition coefficient log Pow: -1.58
4,4'-isopropylidenediphenol
Partition coefficient log Pow: 3.4 at 21.5 degrees celsius.
12.4. Mobility in soil
Ecological information on ingredients.
2,2'-iminodiethylamine
Adsorption/desorption coefficient
Soil/water partition coefficient (Koc) 19.111
12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment
This product does not contain any substances classified as PBT or vPvB.
Ecological information on ingredients.
2,2'-iminodiethylamine
Results of PBT and vPvB assessment
This product does not contain any substances classified as PBT or vPvB.
4,4'-isopropylidenediphenol
Results of PBT and vPvB assessment
This product does not contain any substances classified as PBT or vPvB.
12.6. Other adverse effects

Section 13: Disposal considerations

13.1 Waste treatment methods
General information

All packaging used is compliant with the requirements of EU Directive 94/62/EC for packaging and packaging components. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Confirm disposal procedures with environmental engineer and local regulations. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Dispose of surplus products and those that cannot be

recycled via a licensed waste disposal contractor. Dispose of waste product or used containers in accordance with local regulations When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods

Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Confirm disposal procedures with environmental engineer and local regulations. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Dispose of contents/container in accordance with local regulations. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Do not empty into drains. External recovery, treatment, recycling and disposal of waste should comply with all applicable local and/or national regulations. Only store in correctly labelled containers. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. When handling waste, the safety precautions applying to handling of the product should be considered.

Waste class 16 05 08 discarded organic chemicals consisting of or containing dangerous substances

Section 14: Transport information

14.1. UN number

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, tall-oil reaction products with tetraethylenepentamine)

Proper shipping name (IMDG)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, tall-oil reaction products with tetraethylenepentamine)

Proper shipping name (ICAO)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, tall-oil reaction products with tetraethylenepentamine)

Proper shipping name (ADN)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acids, tall-oil reaction products with tetraethylenepentamine)

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z
Hazard Identification Number (ADR/RID)	90

Tunnel restriction code (-)

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

Section 15: Regulatory information

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

National regulations

EH40/2005 Workplace exposure limits. Health and Safety at Work etc. Act 1974 (as amended).

EU legislation

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments. Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of

Guidance

Introduction to Local Exhaust Ventilation HS(G)37. Workplace Exposure Limits EH40.

Health and environmental listings

None of the ingredients are listed.

Authorisations (Annex XIV Regulation 1907/2006)

No specific authorisations are known for this product.

Restrictions (Annex XVII Regulation 1907/2006)

No specific restrictions on use are known for this product.

Regulatory Approvals

Heavy metals Cadmium [Cd], Mercury [Hg], Lead [Pb] and Chrome [Cr[VI]] are not intentionally used in the manufacture of this product., Further regulatory approvals and compliance with regulatory standards are available upon request.

Water Hazard Classification

WGK 3

Tariff Code

2921290090

Listings

China. Inventory of Existing Chemical Substances (IECSC) (2013 Version, January 2013, amended

through MEE No. 2020-27, 1 May 2020). All components of this product are listed on the Inventory of Existing Chemical Substances (IECSC) or are not required to be listed., European Union EINECS European Inventory of Existing Commercial Substances [EINECS]. All components of this product are listed on the European Inventory of Existing Chemicals Substances and/or are polymers [monomers included on EINECS] and/or meet the criteria of No Longer Polymer., New Zealand. New Zealand Inventory of Chemicals (NZIoC), published by the Environmental Protection Authority (as amended through June 2020). All components of this product are listed on the Environmental Risk Management Authority of New Zealand., This list may not be exhaustive, contact the Company if you require details of inventory status not listed above.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out. Chemicals (REACH) (as amended).

Section 16: Other information

Abbreviations and acronyms used in the safety data sheet

PBT Persistant Bioaccumulative Toxic vPvB Very persistant Very Bioaccumulative WEL Workplace exposure limits

General information:

Only trained personnel should use this material.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 12/11/2019

Supersedes date 05/18/2016

Hazard statements in full 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.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H360F May damage fertility.
H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.