



Safety Data Sheet

Section 1. Identification

Product name : ALPHA® Hitech™ CU21-3240
Product code : 264709
Product type : Liquid.
Date of issue/Date of revision : July 29 2020.

Manufacturer - Supplier	Telephone no.:	Emergency phone:
Alpha Assembly Solutions Inc. Global Headquarters 300 Atrium Drive Somerset, New Jersey 08873	Toll Free: (800) 367-5460 Main Phone: (908) 791-3000	DOMESTIC NORTH AMERICA 202-464-2554
Macdermid Performance Solution Hong Kong Limited / Alpha Assembly Solutions 8/F., Paul Y. Centre, 51 Hung To Road, Kwun Tong, Kowloon, Hong Kong	852-31903100	852-31903100 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
MacDermid Performance Solutions Japan K.K. 480-28 Higashitoyoda, Hiratsuka-shi, Kanagawa, Japan	81-463-53-3333	81-463-53-3333 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions Korea Limited 1Ra 310, Sihwa Industrial Complex, 40, Okgucheonseo-ro, 131 beon-gil, Siheung-Si, Gyeonggi-Do, Korea	82-31-499-1451 Ext 2	82-31-499-1451 Ext 2 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions (Shanghai) Trading Co., Ltd. 2 floor, 5 Building, No.1151 Lianxi Road, Pudong New Area Shanghai 201204 P.R.China	86-21-63900600	86-532-83889090 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions (Taiwan) Limited No.20, Lane 12, Sec.2, Nan-Shan Rd., Luzhu District, Taoyuan City, 33860 Taiwan	886-3-3222721	886-3-3222721 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
MacDermid Performance Solutions, Cookson India Private Limited. Developed Plot no 16, North Phase, SIDCO Industrial estate, Ambattur, Chennai - 600098, India	044-26252666	044-26252666 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions 14 Tuas Avenue 10 Singapore 639138	65 68611977	65 68611977 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Assembly Solutions (Shenzhen) Co., Ltd. Tang Xia Yong Village, Songgang Town Baoan District, Shenzhen, Peoples Republic of China Postal Code: 518105	86 755 2705 1100	86 532 83889090 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Alpha Advanced Materials 14 Joo Koon Crescent Singapore 629014	65 6430 0700	65 6430 0700 INTERNATIONAL, CALL Carechem 24: +65 3158 1074
Active Components (NZ) Ltd (Distributor) 2/14 Canaveral Drive Rosedale (0632), Auckland New Zealand	Tel: +64 9 443 9500	National Poisons Centre Free Phone: 0800 764 766 (0800 POISON) INTERNATIONAL, CALL Carechem 24: +65 3158 1074

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Section 2. Hazards identification

Classification of the substance or mixture : ACUTE TOXICITY (oral) - Category 4
 SKIN CORROSION/IRRITATION - Category 2
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
 SKIN SENSITIZATION - Category 1
 GERM CELL MUTAGENICITY - Category 2
 CARCINOGENICITY - Category 1A
 AQUATIC HAZARD (ACUTE) - Category 2
 AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Harmful if swallowed.
 Causes serious eye irritation.
 Causes skin irritation.
 May cause an allergic skin reaction.
 May cause cancer.
 Suspected of causing genetic defects.
 Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear protective clothing. Wear eye or face protection. Avoid release to the environment. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

: Collect spillage. IF exposed or concerned: Get medical attention. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical attention. 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

: Store locked up.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
bis-[4-(2,3-epoxypropoxy)phenyl]propane	20-30	1675-54-3
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	10-20	5026-74-4
Proprietary Curing agents	1-10	-
Stabilizers	1-10	-
crystalline silica, respirable powder	0.1-1.0	14808-60-7
fenuron	0.1-1.0	101-42-8
carbon black, respirable powder	0.1-1.0	1333-86-4

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Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 30 minutes, keeping eyelids open. Get medical attention.
- 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 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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 15 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- 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 necessary, call a poison center or physician. 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.

Most important symptoms/effects, acute and delayed

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** : Harmful if swallowed.

Over-exposure signs/symptoms

- 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.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

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Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that mists are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

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

- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides

- 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

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** : 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".

- 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials 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.

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Section 6. Accidental release measures

- 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). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.

- 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) and food and drink. Store locked up. 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
crystalline silica, respirable powder	ACGIH TLV (United States, 3/2017). Notes: Respirable fraction; see Appendix C, paragraph C. TWA: 0.025 mg/m ³ 8 hours. Form: Respirable fraction
carbon black, respirable powder	ACGIH TLV (United States, 3/2017). Notes: Substance identified by other sources as a suspected or confirmed human carcinogen. 1996 Adoption Refers to Appendix A -- Carcinogens. TWA: 3 mg/m ³ 8 hours. Form: Inhalable fraction

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
crystalline silica, respirable powder	TW Ministry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 6/2014). STEL: 15 mg/m ³ / (%SiO ₂ +2) 15 minutes. Form: Respirable dust
carbon black, respirable powder	TW Ministry of Labor, labor permissible workplace exposure standards, allowable concentration (Taiwan, 6/2014). STEL: 7 mg/m ³ 15 minutes. TWA: 3.5 mg/m ³ 8 hours.

Ingredient name	Exposure limits
crystalline silica, respirable powder	GBZ 2.1 (China, 4/2007). PC-TWA: 0.7 mg/m ³ 8 hours. Form: respirable dust
carbon black, respirable powder	GBZ 2.1 (China, 4/2007). PC-TWA: 4 mg/m ³ 8 hours. Form: total dust

Ingredient name	Exposure limits
Silica, vitreous	Ministry of Employment and Labor (Republic of Korea, 8/2016). TWA: 0.1 mg/m ³ 8 hours. Form: Respirable fraction
crystalline silica, respirable powder	Ministry of Employment and Labor (Republic of Korea, 8/2016). TWA: 0.05 mg/m ³ 8 hours. Form: Respirable fraction
carbon black, respirable powder	Ministry of Employment and Labor (Republic of Korea, 8/2016). TWA: 3.5 mg/m ³ 8 hours. Form: Respirable fraction

Ingredient name	Exposure limits
Silica, vitreous	DOSH USECHH (Malaysia, 4/2000). TWA: 0.1 mg/m ³ 8 hours. Form: respirable fraction
crystalline silica, respirable powder	DOSH USECHH (Malaysia, 4/2000). TWA: 0.1 mg/m ³ 8 hours. Form: respirable fraction
carbon black, respirable powder	DOSH USECHH (Malaysia, 4/2000). TWA: 3.5 mg/m ³ 8 hours.

Ingredient name	Exposure limits
Silica, vitreous	Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 0.1 mg/m ³ 8 hours. Form: Respirable Dust
crystalline silica, respirable powder	Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 0.1 mg/m ³ 8 hours. Form: Respirable Dust
carbon black, respirable powder	Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 3.5 mg/m ³ 8 hours.

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants 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

Appearance

- Physical state** : Liquid.
- Color** : Black.
- Odor** : Mild.
- Odor threshold** : Not available.
- pH** : 6 to 8
- Melting point** : 0°C (32°F)
- Boiling point** : >204.44°C (>400°F)
- Flash point** : Closed cup: >93.33°C (>200°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.

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Section 9. Physical and chemical properties

Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.5 to 1.6
Solubility	: Very slightly soluble in the following materials: cold water and hot water.
VOC	170.5 g/l
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
bis-[4-(2,3-epoxipropoxy)phenyl]propane	LD50 Dermal	Rabbit	20 g/kg	-
Proprietary Curing agents	LD50 Oral	Mouse	>10000 mg/kg	-
Stabilizers	LD50 Oral	Rat	>500 mg/kg	-
	LD50 Dermal	Mouse	>1270 mg/kg	-
	LD50 Dermal	Rat	>1200 mg/kg	-
	LD50 Oral	Mouse	>500 mg/kg	-
	LD50 Oral	Rat	11.4 g/kg	-
	LD50 Oral	Rat	11400 mg/kg	-
fenuron	LD50 Oral	Rat	13600 mg/kg	-
	LD50 Oral	Rat	6400 mg/kg	-
carbon black, respirable powder	LD50 Oral	Rat	>15400 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis-[4-(2,3-epoxipropoxy)phenyl]propane	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitization

Not available.

Mutagenicity

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Section 11. Toxicological information

Product/ingredient name	Test	Experiment	Result
Stabilizers	-	Experiment: In vitro Subject: Mammalian-Animal	Equivocal
	-	Experiment: In vitro Subject: Yeast	Equivocal

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity

Name	Category	Route of exposure	Target organs
crystalline silica, respirable powder	Category 1	Inhalation	respiratory tract

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
crystalline silica, respirable powder	Category 1	Not determined	kidneys and respiratory tract

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

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** : Harmful if swallowed.

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.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

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Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

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

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : Suspected of causing genetic defects.

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	629.1 mg/kg
Dermal	12673.4 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
fenuron	Acute LC50 204 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
carbon black, respirable powder	Acute EC50 37.563 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Proprietary Curing agents	-1	3.09	low
fenuron	0.98	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

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Section 13. Disposal considerations

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

	UN	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

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

Taiwan

SDS complies with the Regulation of Labeling and Hazard Communication of Hazardous Chemicals

List of chemicals for which manufacturing or handling is defined as "work specially hazardous to health" : This product contains substances "Specially hazardous to health": Aliphatic ketone., styrene.

List of chemicals reputed to be a "threat of imminent danger" : This product contains substances considered to be a "Threat of imminent danger": Silica, vitreous.

OSHA Article 29 : None of the components are listed.

OSHA Article 30 : None of the components are listed.

China

SDS complies with the General Rules for Classification and Hazardous Communication of Chemicals GB-13690-2009, GB-30000 series, and GB/T 16438-2008.

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Section 15. Regulatory information

List of Goods banned for Importing

None of the components are listed.

Inventory of Hazardous Chemicals

None of the components are listed.

List of Goods banned for Exporting

None of the components are listed.

List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

Inventory of Highly Toxic Chemicals

None of the components are listed.

Catalogue of Hazardous Chemicals of Priority Management

None of the components are listed.

Catalogue of Priority Hazardous Chemicals for Environmental Management

None of the components are listed.

Other China Regulations

Catalogue of Hazardous Chemicals (2015)
 Classification & code of dangerous goods (GB 6944-2012)
 Production Safety Law of the People's Republic of China
 Law of the People's Republic of China on Prevention and Control of Occupational Diseases
 Environmental Protection Law of the People's Republic of China
 Regulation on Work Safety Licenses
 Classification of transportation packing type of dangerous goods GB/T 15098-2008
 General rules for classification and hazardous communication of chemicals GB 13690-2009
 List of Dangerous Goods GB12268-2012
 Occupational Exposure Limits (OELs) for hazardous chemicals GBZ 2.1-2007
 Hazardous Chemicals Safety Management Ordinance China (2013 revised)
 Safety data sheet for chemical products: content & order of sections GB/T 16483-2008
 Rules for classification and labelling of chemicals GB30000-2013
 Guidance on the compilation of safety data sheet for chemical products GB/T 17519-2013

Republic of Korea

A. Regulation according to ISHA

ISHA article 37 : None of the components are listed.
(Harmful substances prohibited from manufacture)

ISHA article 38 : None of the components are listed.
(Harmful substances requiring permission)

Article 2 of Youth Protection Act on Substances Hazardous to Youth : Not applicable.

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:
 Silica, vitreous
 crystalline silica, respirable powder
 carbon black, respirable powder

ISHA Enforcement Regs Annex 11-3 (Exposure standards established for harmful factors) : None of the components are listed.

Section 15. Regulatory information

ISHA Enforcement Regs Annex 11-4 (Harmful factors subject to Work Environment Measurement) : None of the components are listed.

ISHA Enforcement Regs Annex 12-2 (Harmful Factors Subject to Special Health Check-up) : None of the components are listed.

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) : None of the components are listed.

B. Regulation according to Chemicals Control Act

K-Reach Article 20 (Toxic chemicals) : Not applicable

K-Reach Article 27 (Prohibited) : None of the components are listed.

K-Reach Article 27 (Restricted) : None of the components are listed.

Existing Chemical Substances Subject to Registration : None of the components are listed.

CSCA Article 11 (TRI) : The following components are listed: Stabilizers

CSCA Article 39 (Accident Precaution Chemicals) : None of the components are listed.

C. Dangerous Materials Safety Management Act : Not available.

D. Wastes regulation : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Singapore - hazardous chemicals under government control

None.

Japan

Fire Service Law

None of the components are listed.

Fire Service Law - Obstructive materials : Not listed

Designated combustibles : Not available.

Designated quantity : Not available.

Maritime Safety Law

Notification Regulating Transportation of Dangerous Materials by Sea

None of the components are listed.

Container class

None of the components are listed.

ISHL

Use of specified chemical substances

None of the components are listed.

Label requirements

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Section 15. Regulatory information

Ingredient name	%	Status
Silica	≥25 - ≤50	Listed
Silica	<1.0	Listed

Chemicals requiring notification

Ingredient name	%	Status
Silica	≥25 - ≤50	Listed
Silica	<1.0	Listed
Carbon black	≤0.30	Listed

Carcinogen

None of the components are listed.

Mutagen

Ingredient name	%	Status
N,N-bis(2,3-epoxypropyl)-4-(2,3-epoxypropoxy)aniline	≥10 - ≤25	Listed

- Corrosive liquid** : Not listed
ISHL Appendix 1 : Not available.
Lead regulation : Not listed
Prevention of Tetraalkyl Lead Poisoning : Not listed
Harmful Substances Subject to Obtaining Permission for Manufacturing : Not listed
Harmful Substances, Prohibited for Manufacturing : Not listed
Dangerous Substances : Not listed

Organic solvents poisoning prevention : Not available.

Chemical Substances Control Law (CSCL)

None of the components are listed.

Poisonous and Deleterious Substances

None of the components are listed.

Pollutant Release and Transfer Registers (PRTR)

None of the components are listed.

- JSOH Carcinogen** : Group 1
Law Concerning Prevention of Pollution of the Ocean and Maritime Disaster : Not available.
Road law : Not available.
List of Specially Controlled Industrial Waste : Not listed
Occupational Safety and Health Law : Not available.

Explosives Control Law

None of the components are listed.

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Section 15. Regulatory information

High Pressure Gas Control Law : Not available.

Safety, health and environmental regulations specific for the product : No known specific national and/or regional regulations applicable to this product (including its ingredients).

International lists

National inventory

Australia	: At least one component is not listed.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: At least one component is not listed.
Philippines	: Not determined.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
Viet Nam	: Not determined.

Section 16. Other information

History

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Prepared by : **Regulatory Affairs Department**
enthone.msds@macdermidenthone.com

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1A, H350 Aquatic Acute 2, H401 Aquatic Chronic 2, H411	Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

References : Not available.

✔ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.