SAFETY DATA SHEET

TS380105

Section 1. Identification

Product name	: TOP SHIELD Polyurethane Sealant Bronze
Product code	: TS380105
Other means of identification	: Not available.
Product type	: Liquid.
Relevant identified uses of	of the substance or mixture and uses advised against
Paint or paint related mater	ial.
Manufacturer	: SRS Distribution Inc. 5900 S. Lake Forest Drive, Suite 400 McKinney, TX 75070-2196
Emorgoney tolophono	• (216) 566 2017

Emergency telephone number of the company	: (216) 566-2917
Product Information Telephone Number	: (800) 348-7615
Regulatory Information Telephone Number	: (216) 566-2902
Transportation Emergency Telephone Number	: (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 46.1% Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 46.1% Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 46. 1%
GHS label elements	
Hazard pictograms	
Signal word	: Danger
Hazard statements	 Causes serious eye irritation. Causes skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause cancer. May cause respiratory irritation.
Provide the second state of the second state	

Precautionary statements

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Section 2. Hazards identification

General	: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
Prevention	 Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wear respiratory protection. Use only outdoors or in a well- ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
Response	: IF exposed or concerned: Get medical attention. IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. If experiencing respiratory symptoms: Call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing 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.
Supplemental label elements	WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Adequate ventilation required when sanding or abrading the dried film. If Adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use. DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Abrading or sanding of the dry film may release Crystalline Silica which has been shown to cause lung damage and cancer under long term exposure. VAPOR AND SPRAY MIST HARMFUL. Gives off harmful vapor of solvents and isocyanates. DO NOT USE IF YOU HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS, OR IF YOU HAVE EVER HAD A REACTION TO ISOCYANATES. USE ONLY WITH ADEQUATE VENTILATION. WHERE OVERSPRAY IS PRESENT, A POSITIVE PRESSURE AIR SUPPLIED RESPIRATOR (NIOSH approved) SHOULD BE WORN TO PREVENT EXPOSURE. IF UNAVAILABLE, AN APPROPRIATE PROPERLY FITTED APPROVED NIOSH VAPOR/PARTICULATE RESPIRATOR MAY BE EFFECTIVE. Follow directions for respirator use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. If you have any breathing problems during use, LEAVE THE AREA and get fresh air. If problems remain or happen later, IMMEDIATELY call a doctor - If not available get emergency medical treatment. Have this label with you. Reacts with water in closed container to produce pressure which may cause container to burst.
	Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.
Hazards not otherwise	: None known.

classified

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.

CAS number/other identifiers

Ingredient name	% by weight	CAS number
Calcium Carbonate	≥25 - ≤50	1317-65-3
Calcium Oxide	≤2.9	1305-78-8
Diphenylmethane Diisocyanate Polymer	<1	9016-87-9
p-Toluenesulfonyl Isocyanate	<1	4083-64-1
4, 4'-Diphenylmethane Diisocyanate	<1	101-68-8
Crystalline Silica, respirable powder	≤0.3	14808-60-7
Bis(pentamethyl-4-piperidyl)sebacate	≤0.3	41556-26-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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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 and hence require reporting in this section.

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

Section 4. First aid measures

Description of necess	ary first aid measures
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.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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. In the event of any complaints or symptoms, avoid further exposure.
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.
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. 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 sympto	oms/effects, acute and delayed
Potential acute health	<u>effects</u>
Eye contact	: Causes serious eye irritation.
Inhalation	 May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs/s	<u>symptoms</u>
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing wheezing and breathing difficulties asthma
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

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Section 4. First aid measures

Indication of immediate mee	dical 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.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes 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.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides 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).			
Methods and materials for co	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 or asthma, allergies or chronic or recurrent respiratory disease 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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 (OSHA United States)

Ingredient name	Exposure limits		
Calcium Carbonate	OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction TWA: 15 mg/m ³ 8 hours. Form: Total dust NIOSH REL (United States, 10/2016). TWA: 5 mg/m ³ 10 hours. Form: Respirable fraction TWA: 10 mg/m ³ 10 hours. Form: Total		
Calcium Oxide	ACGIH TLV (United States, 3/2018). TWA: 2 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 2 mg/m ³ 10 hours. OSHA PEL (United States, 5/2018). TWA: 5 mg/m ³ 8 hours.		
Diphenylmethane Diisocyanate Polymer p-Toluenesulfonyl Isocyanate 4, 4'-Diphenylmethane Diisocyanate	None. None. ACGIH TLV (United States, 3/2018). TWA: 0.005 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 0.05 mg/m ³ 10 hours.		
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Section 8. Exposure controls/personal protection

	TWA: 0.005 ppm 10 hours.
	CEIL: 0.2 mg/m ³ 10 minutes.
	CEIL: 0.02 ppm 10 minutes.
	OSHA PEL (United States, 5/2018).
	CEIL: 0.02 ppm
	CEIL: 0.2 mg/m ³
Crystalline Silica, respirable powder	OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO2+5) 8 hours. Form:
	TWA: 10 mg/m ³ / (%SiO2+2) 8 hours. Form:
	Respirable
	OSHA PEL (United States, 5/2018).
	TWA: 50 µg/m ³ 8 hours. Form: Respirable
	dust
	ACGIH TLV (United States, 3/2018).
	TWA: 0.025 mg/m ³ 8 hours. Form:
	Respirable fraction
	NIOSH REL (United States, 10/2016).
	TWA: 0.05 mg/m ³ 10 hours. Form: respirable
	dust
Bis(pentamethyl-4-piperidyl)sebacate	None.

Occupational exposure limits (Canada)

Ingredient name	Exposure limits
Limestone	 CA British Columbia Provincial (Canada, 7/2018). TWA: 3 mg/m³ 8 hours. Form: Respirable dust TWA: 10 mg/m³ 8 hours. Form: Total dust STEL: 20 mg/m³ 15 minutes. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 10 mg/m³ 8 hours. Form: Total dust. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.
Calcium oxide	CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 2 mg/m ³ 8 hours. CA British Columbia Provincial (Canada, 7/2018). TWA: 2 mg/m ³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 2 mg/m ³ 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 2 mg/m ³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 4 mg/m ³ 15 minutes. TWA: 2 mg/m ³ 8 hours.
Isocyanuric acid polymethylene polyphenyl isocyanate	 CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 0.07 mg/m³ 8 hours. 8 hrs OEL: 0.005 ppm 8 hours. CA British Columbia Provincial (Canada, 7/2018). TWA: 0.005 ppm 8 hours. C: 0.01 ppm CA Ontario Provincial (Canada, 1/2018). C: 0.02 ppm
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Section 8. Exposure controls/personal protection

	TWA: 0.005 ppm 8 hours.
Diphenylmethane-4,4'-diisocyanate	CA Alberta Provincial (Canada, 6/2018).
_ p j	8 hrs OEL: 0.005 ppm 8 hours.
	8 hrs OEL: 0.05 mg/m ³ 8 hours.
	CA British Columbia Provincial (Canada,
	7/2018). Absorbed through skin. Inhalation
	sensitizer.
	TWA: 0.005 ppm 8 hours.
	C: 0.01 ppm
	CA Quebec Provincial (Canada, 1/2014).
	Skin sensitizer.
	TWAEV: 0.005 ppm 8 hours.
	TWAEV: 0.051 mg/m ³ 8 hours.
	CA Ontario Provincial (Canada, 1/2018).
	TWA: 0.005 ppm 8 hours.
	CA Saskatchewan Provincial (Canada,
	7/2013).
	STEL: 0.015 ppm 15 minutes.
	TWA: 0.005 ppm 8 hours.
Quartz	CA British Columbia Provincial (Canada,
	7/2018).
	TWA: 0.025 mg/m ³ 8 hours. Form:
	Respirable
	CA Quebec Provincial (Canada, 1/2014).
	TWAEV: 0.1 mg/m ³ 8 hours. Form:
	Respirable dust.
	CA Ontario Provincial (Canada, 1/2018).
	TWA: 0.1 mg/m ³ 8 hours. Form: Respirable
	fraction.
	CA Alberta Provincial (Canada, 6/2018).
	8 hrs OEL: 0.025 mg/m ³ 8 hours. Form:
	Respirable particulate
	CA Saskatchewan Provincial (Canada,
	7/2013).
	TWA: 0.05 mg/m ³ 8 hours. Form: respirable
	fraction

Occupational exposure limits (Mexico)

Ingredient name	Exposure limits
Calcium Oxide 4, 4'-Diphenylmethane Diisocyanate	NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 2 mg/m ³ 8 hours. NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 0.005 ppm 8 hours.

Appropriate engineering controls	Use only with adequate ventilation. 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

Section 8. Exposure controls/personal protection

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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 : Not available. Odor : Not available. Odor threshold : Not available. pH : 8 Melting point/freezing point : Not available. Boiling point/boiling range : Not available. Flash point : Closed cup: >94°C (>201.2°F) Evaporation rate : Not available. Flammability (solid, gas) : Not available. Lower and upper explosive (flammable) limits : Not relevant/applicable due to nature of the product. Vapor pressure : Not available. Relative density : 1.48 Solubility : Not available. Partition coefficient: n- : Not available.	
Color: Not available.Odor: Not available.Odor threshold: Not available.pH: 8Melting point/freezing point: Not available.Boiling point/boiling range: Not available.Flash point: Closed cup: >94°C (>201.2°F)Evaporation rate: Not available.Flammability (solid, gas): Not available.Lower and upper explosive: Not available.(flammabe) limits: Not available.Vapor pressure: Not relevant/applicable due to nature of the product.Vapor density: Not available.Relative density: 1.48Solubility: Not available.	
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Relative density: 1.48Solubility: Not available.	
Solubility : Not available.	
•	
Partition coefficient: n- : Not available.	
octanol/water	
Auto-ignition temperature : Not available.	
Decomposition temperature : Not available.	
Viscosity : Kinematic (40°C (104°F)): >0.205 cm ² /s (>20.5 cSt)	
Molecular weight : Not applicable.	
Aerosol product	

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Section 9. Physical and chemical properties

Heat of combustion : 10.139 kJ/g

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.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
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

Acute toxicity						
Product/ingredient name	Result	Species	Dose	Exposure		
Diphenylmethane Diisocyanate Polymer	LC50 Inhalation Vapor	Rat	490 mg/m ³	4 hours		
	LD50 Dermal	Rabbit	>9400 mg/kg	-		
	LD50 Oral	Rat	49 g/kg	-		
p-Toluenesulfonyl Isocyanate	LD50 Oral	Rat	2234 mg/kg	-		
4, 4'-Diphenylmethane Diisocyanate	LD50 Oral	Rat	9200 mg/kg	-		

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Diphenylmethane Diisocyanate Polymer	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
p-Toluenesulfonyl Isocyanate	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-
4, 4'-Diphenylmethane Diisocyanate	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP			
Diphenylmethane Diisocyanate Polymer	-	3	-			
4, 4'-Diphenylmethane Diisocyanate	-	3	-			
Crystalline Silica, respirable powder	-	1	Known to be a human carcinogen.			

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Calcium Carbonate	Category 3	Not applicable.	Respiratory tract irritation
Calcium Oxide	Category 3	Not applicable.	Respiratory tract irritation
Diphenylmethane Diisocyanate Polymer	Category 3	Not applicable.	Respiratory tract irritation
p-Toluenesulfonyl Isocyanate	Category 3	Not applicable.	Respiratory tract irritation
4, 4'-Diphenylmethane Diisocyanate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	 Route of exposure	Target organs
	 Not determined	Not determined Not determined Not determined

Aspiration hazard

Not available.

Information on the likely : Not available.

routes of exposure

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	Adverse symptoms may include the following: respiratory tract irritation coughing wheezing and breathing difficulties asthma

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Section 11. Toxic	cological information				
Skin contact	: Adverse symptoms may include the following: irritation redness				
Ingestion	: No specific data.				
Delayed and immediate ef	fects 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					
Potential immediate effects	: Not available.				
Potential delayed effects	: Not available.				
Potential chronic health e	ffects				
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	: 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 Not available.

Section 12. Ecological information

Toxicity							
Product/ingredient name	Result	Species	Exposure				
Calcium Oxide	Chronic NOEC 100 mg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	46 days				

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
Calcium Oxide 4, 4'-Diphenylmethane Diisocyanate	-	2.34 200	low low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

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Section 12. Ecological information

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

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

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	UN3082
UN proper shipping name	-	-	-	-	ENVIRONMENTALL HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dialkyl (C9-C11) Phthalates, Bis (pentamethyl- 4-piperidyl) sebacate). Marine pollutant (Dialkyl (C9-C11) Phthalates, Bis (pentamethyl- 4-piperidyl) sebacate)
Transport hazard class(es)	-	-	-	-	9
Packing group	-	-	-	-	
Environmental hazards	No.	No.	No.	No.	Yes.
Additional information	-	-	-	The environmentally hazardous substance mark may appear if required by other transportation regulations.	This product is no regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1. 1, 4.1.1.2 and 4.1 1.4 to 4.1.1.8. <u>Emergency</u> <u>schedules</u> F-A, S

Section 14. Transport information

Special precautions for user	consider container sizes. mode of transport (sea, a suitably for that mode of t prior to shipment, and cor responsibility of the perso unloading dangerous goo	Aulti-modal shipping descriptions are provided for informational purposes and do not onsider container sizes. The presence of a shipping description for a particular node of transport (sea, air, etc.), does not indicate that the product is packaged uitably for that mode of transport. All packaging must be reviewed for suitability rior to shipment, and compliance with the applicable regulations is the sole esponsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the ubstances and on all actions in case of emergency situations.		
Transport in bulk according to Annex II of MARPOL and the IBC Code	: Not available.			
	Proper shipping name	: Not available.		
	Ship type	: Not available.		
	Pollution category	: Not available.		

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists	 Australia inventory (AICS): Not determined. China inventory (IECSC): Not determined. Japan inventory (ENCS): Not determined. Japan inventory (ISHL): Not determined. Korea inventory (KECI): Not determined. Malaysia Inventory (EHS Register): Not determined. New Zealand Inventory of Chemicals (NZIoC): Not determined. Philippines inventory (PICCS): Not determined. Taiwan Chemical Substances Inventory (TCSI): Not determined. Thailand inventory: Not determined. Turkey inventory: Not determined. Vietnam inventory: Not determined.
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Section 16. Other information

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



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.

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 and the associated label are not required on SDSs or products leaving a facility 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 trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

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	Justification			
SKIN CORROSION/IRRIT, SERIOUS EYE DAMAGE/ RESPIRATORY SENSITIZ SKIN SENSITIZATION - C CARCINOGENICITY - Cat SPECIFIC TARGET ORG/ irritation) - Category 3	Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method			
<u>History</u>				
Date of printing	: 6/5/2019			
Date of issue/Date of revision	: 6/5/2019			
Date of previous issue	: 4/16/2019			
Version	lersion : 5			
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 = Internediate 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				

✓ Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.