

SCORPION SX02 PART A

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Supplier Details: Scorpion Protective Coatings
6184 South US Highway 231
Cloverdale, IN 46120

Emergency: (800)483-9087
Phone: (800)483-9087
Web: www.scorpioncoatings.com

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Health, Respiratory or skin sensitization, 1 Respiratory
Health, Acute toxicity, 3 Dermal
Environmental, Hazards to the aquatic environment- Acute, 2
Health, Respiratory or skin sensitization, 1 Skin
Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 2 A
Health, Specific target organ toxicity- Single exposure, 3
Health, Acute toxicity, 4 Oral

GHS Label elements, including precautionary statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

H334- May cause allergy or asthma symptoms of breathing difficulties if inhaled
H311 -Toxic in contact with skin
H401 -Toxic to aquatic life
H317 - May cause an allergic skin reaction
H315- Causes skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H302 - Harmful if swallowed

GHS Precautionary Statements:

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 -Wash skin thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
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.
P284 -Wear respiratory protection.
P302+352- IF ON SKIN: Wash with soap and water.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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P305+351+338- IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor/physician.

P333+313- If skin irritation or a rash occurs: Get medical advice/attention.

P337+313 - Get medical advice/attention.

P362 -Take off contaminated clothing and wash before reuse.

P403+233- Store in a well ventilated place. Keep container tightly closed.

P501 - Dispose of contents/container to a licensed waste disposal facility.

Hazards not otherwise classified (HNOC) or not covered by GHS

Route of Entry: Eyes; Ingestion; Inhalation; Skin;

Target Organs: Respiratory system; Skin; Eyes;

Inhalation: At room temperature, isocyanate vapors are minimal due to low vapor pressure. However, heating, spraying, foaming, or otherwise mechanically dispersing (drumming, venting or pumping) operations may generate vapor or aerosol concentrations sufficient to cause irritation or other adverse effects. Excessive exposure may cause irritation of the eyes, upper respiratory tract and lungs. Severe overexposure may lead to pulmonary edema. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals. MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Symptoms may include coughing, dryness of throat, headache, nausea, difficult breathing and a feeling of tightness in the chest. Effects may be delayed. Impaired lung function (decreased ventilator capacity) has been associated with overexposure to isocyanates
Chronic: As a result of previous repeated overexposures or a single large dose, certain individuals develop isocyanate sensitization (chemical asthma) or tissue injury in the upper respiratory tract. Animal tests indicate skin contact alone may also lead to allergic respiratory reaction. These effects may be permanent. Any person developing asthmatic reaction or other sensitization should be removed from further exposure

Skin Contact: Slight irritation may develop following short contact periods with skin. Prolonged or repeated exposure can cause skin irritation, reddening, dermatitis, and in some individuals, sensitization. Skin contact may result in allergic skin reactions or respiratory sensitization, but is not expected to result in absorption of amounts sufficient to cause other adverse effects. May stain skin.

Eye Contact: As a liquid may cause severe irritation, inflammation, and/or damage to sensitive eye tissue. Symptoms include watering or discomfort of the eyes. Corneal injury is unlikely.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
0	60-90%	Aliphatic isocyanate prepolymer blend
5124-30-1	<2%	Methylene bis (4-cyclohexylisocyanate)
64741-65-7	10-30%	Naphtha, petroleum, heavy alkylate

SECTION 4: FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility immediately.

Skin Contact: Remove contaminated clothing immediately. Wash with large quantities of soap and water. Wash clothing before reuse. Seek medical attention if redness, burning or an itching sensation develops or persists after the area is washed.

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Eye Contact: Flush eyes with plenty of water for at least 15 minutes. Materials containing isocyanates may react with the moisture of the eye forming a thick material, which may be difficult to wash from the eyes. Seek medical attention.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. This material is an aspiration hazard. Never give anything by mouth to an unconscious person. Seek medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flammability:	OSHA- none; DOT- none
Flash Point:	>109°F
Flash Point Method:	COC
Burning Rate:	N/A
Auto ignition Temp:	N/A
LEL:	N/A
UEL:	N/A

Use dry chemical, foam, carbon dioxide, or halogenated agents. If water is used, use very large quantities. The reaction between water and hot isocyanate may be vigorous. If possible, contain fire run-off water.

Protective Equipment: Wear positive-pressure self-contained breathing apparatus with full-face mask and full protective clothing.

Unusual Hazards: When exposed to extreme heat, pressure build-up in closed containers may occur. Explosive rupture is possible. Water contamination will produce carbon dioxide. Do not reseal contaminated containers as pressure buildup may rupture the containers. Downwind personnel must be evacuated.

Fire Degradation Products: Isocyanate vapor and mist, carbon dioxide, carbon monoxide, nitrogen oxides and traces of hydrogen cyanide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill: Evacuate spill area. With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material such as clay or vermiculite and transfer to metal waste containers. Move container to a well ventilated area (outside), but do not seal the container with the isocyanate mixture. Larger quantities of liquid may be transferred directly to drums for disposal. Decontaminate or discard all clean-up equipment.

NOTE: ISOCYANATES WILL REACT WITH WATER AND GENERATE CARBON DIOXIDE. THIS COULD RESULT IN THE RUPTURE OF ANY CLOSED CONTAINERS.

Clean up: The area should then be flushed with a decontamination solution. The decontamination solution is a 5-10% mixture of sodium carbonate and 0.5% liquid detergent in water solution or a 3-8% concentrated ammonium hydroxide and 0.5% liquid detergent in water. Use 10 parts decontamination solution to 1 part spilled material. If the ammonium hydroxide solution is used, ammonia will be evolved as a vapor. Use caution to avoid exposure to high concentrations of ammonia. Allow to stand for 48 hours letting evolved carbon dioxide to escape.

SECTION 7: HANDLING AND STORAGE

Handling Precautions: Handling: Use personal protective equipment when transferring material to or from drums, totes or other containers. The reaction of polyols and isocyanates generates heat. Contact of the reacting materials with skin or eyes can cause irritation and may be difficult to remove from the affected areas. Immediately wash affected areas with plenty of water and seek medical attention. In addition, such contact increases the risk of exposure to isocyanate vapors. Do not smoke or use naked lights, open flames, space heaters, or other ignition sources near pouring, frothing or spraying operations.

Special Emphasis for Spray Applications: Inspect the application area from the potential to expose other persons or for overspray to drift onto buildings, vehicles or other property. When spraying building exteriors, persons entering or exiting the building as well as those inside

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Storage Requirements:

could be exposed to polyisocyanates due to wind conditions, open windows or air intakes. Do not begin application work until these potential problems have been corrected.

When stored between 15°C-30°C (60°F-85°F) in sealed containers, the typical shelf life is 6 months or more from the date of manufacture. Consult technical data sheet for shelf life requirements affecting performance quality. Open containers must be handled properly to prevent moisture pickup. Should freezing occur, the material must be thawed thoroughly and mixed until uniform.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

General/local ventilation typically control vapor levels very adequately. Uses requiring heating or spraying may require more ventilation or **PPE**.

Equipment: An eyewash station and safety shower or other drenching facilities are recommended in the work area.

Personal Protective Equipment:

HMIS **PP**, K | Full Face Respirator, Gloves, Full Suit, Boots

Personal protective equipment

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Immersion protection Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: > 480 min Material tested: Butoject (Aldrich 2677647, Size M)

Splash protection: Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: > 30 min Material tested: Camatril (Aldrich 2677442, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Methylene bis(4-cyclohexylisocyanate) (5124-30-1)

Components with workplace control parameters

TWA 0.0050 ppm USA. ACGIH Threshold Limit Values

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	(TLV)	
Lower Respiratory Tract irritation		
Respiratory sensitization		
C	0.01 ppm 0.11 mg/m3	USA. OSHA-TABLE Z-1 Limits for Air Contaminants- 1910.1000
Skin notation		
C	0.01 ppm 0.11 mg/m3	USA. NIOSH Recommended Exposure Limits

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Non-pigmented liquid.	Odor:	Aromatic
Physical State:	Liquid	Solubility:	
Threshold:	No data available	Percent Volatile:	Not soluble in water, REACTS with w 20% by weight, 25% by volume
Spec Grav./Density:	No data available	Freezing/Melting Pt.:	No data available
Viscosity:	No data available	Flash Point:	>109°F
Boiling Point:	>300°F	Vapor Density:	>1
Flammability:	None	Auto-Ignition Temp:	No data available
Partition Coefficient:	No data available No	UFL/LFL:	No data available
Vapor Pressure:	data available No		
pH:	data available		
Evap. Rate:	<1		
Decomp Temp:	No data available		

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability:	Stability: Polyisocyanates are highly reactive chemicals and should be handled and stored in a way to avoid exposure to many common substances, including water and moisture. Material is stable when stored in sealed containers under normal conditions. Avoid extended exposure over 110°F (45°C). Reactivity: Reacts with water, acids, bases, alcohols, metal compounds. The reaction with water is very slow under 120°F (50°C), but is accelerated at higher temperatures and in the presence of alkalis, tertiary amines and metal compounds. Some reactions can be vigorous or even violent.
Conditions to Avoid:	Avoid high temperatures, sparks, flame and extended exposure over 85°F (30°C).
Materials to Avoid:	water, acids, bases, alcohols, metal compounds
Hazardous Polymerization:	May occur with incompatible reactants especially strong bases, high temperatures and water. Possible evolution of carbon dioxide gas from overheating or exposure to contaminants may rupture closed containers.

SECTION 11: TOXICOLOGICAL INFORMATION

Methylene bis(4-cyclohexylisocyanate) (5124-30-1)

Information on toxicological effects

Acute toxicity:

LD50 Oral- rat- 9,900 mg/kg Remarks: Behavioral: Food intake (animal). Diarrhoea Liver: Other changes.

LC50 Inhalation - rat- 4 h - 434 mg/m3

LD50 Dermal - rabbit - > 10,000 mg/kg

no data available

Skin corrosion/irritation: Skin - rabbit Result: Skin irritation - 24 h

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Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity-single exposure: May cause respiratory irritation.

Specific target organ toxicity-repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: NQ9250000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Stomach - Irregularities - Based on Human Evidence

SECTION 12: ECOLOGICAL INFORMATION

Methylene bis(4-cyclohexylisocyanate) (5124-30-1) [<2%]

Information on ecological effects

Toxicity:

Toxicity to fish LC50- Danio rerio (zebra fish)- 1.2 mg/l- 96 h.

Persistence and degradability: Biodegradability Result: - Readily biodegradable.

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations. Disposal: Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

Do not allow material to enter sewers, a body of water, or contact the ground. Refer to RCRA 40 CFR 261, and/or any other appropriate federal, state or local requirements for proper classification information.

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SECTION 14: TRANSPORT INFORMATION

UN1263, Paint including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base, 3, PGIII

Non DOT/RCRA regulated

SECTION 15: REGULATORY INFORMATION

Component (CAS#) [%]- CODES

Methylene bis(4-cyclohexylisocyanate) (5124-30-1) [<2%] MASS, OSHAWAC, PA, SARA313, TSCA, TXAIR

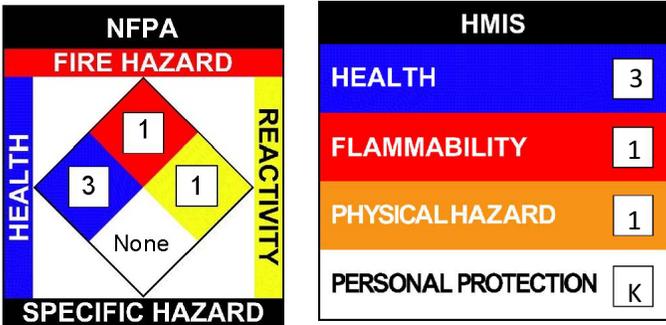
Naphtha, petroleum, heavy alkylate (64741-65-7) [10-30%] TSCA

Regulatory CODE Descriptions

MASS = MA Massachusetts Hazardous Substances List
 OSHAWAC = OSHA Workplace Air Contaminants
 PA = PA Right-To-Know List of Hazardous Substances
 SARA313 = SARA 313 Title III Toxic Chemicals
 TSCA = Toxic Substances Control Act
 TXAIR = TX Air Contaminants with Health Effects Screening Level

SECTION 16: OTHER INFORMATION

NFPA: Health = 3, Fire = 1, Reactivity = 1, Specific Hazard = None
 HMIS III: Health = 3, Fire = 1, Physical Hazard = 1
 HMIS PPE: K – Full Face Respirator, Gloves, Full Suit, Boots



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