SAFETY DATA SHEET

GreenThane 7490-CA



Conforms to ANSI Z400 1-2010 Standard - HCS 2012

Protective Clothing	General Hazard	DOT

1. Identification of Substance:

Product Name: GreenThane 7490-CA Urethane

Roof Topcoat - White

Product Identity: 47YJB10000, 7490-CA

Product Type: polyurethane paint

Field of Application: building and metal industry

Identified uses: Industrial/Professional use

TSCA: Unless otherwise stated. All components are

listed or exempted.

Company Details: Green Sheild Products

Address:

4008 Louetta Rd. Suite #464

Spring, TX 77388

Telephone:

1-877-GRN-SHLD

2. Hazards Identification

Classification of the substance or mixture

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard

Communication Standard (29 CFR 1910.1200).

GHS Classification: FLAMMABLE LIQUIDS - Category 2

ACUTE TOXICITY (inhalation) - Category 4

SKIN IRRITATION - Category 2

SERIOUS EYE DAMAGE - Category 1

RESPIRATORY SENSITIZATION - Category 1

SKIN SENSITIZATION - Category 1

TOXIC TO REPRODUCTION - Category 2

Label Elements

Hazard pictograms:









Signal Word: Danger

Hazard statements: H225 - Highly flammable liquid and vapor.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H332 - Harmful if inhaled.

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H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H361 - Suspected of damaging fertility or the unborn child.







Precautionary statements:

Prevention: Obtain special instructions before use. Wear protective gloves. Wear protective clothing.

Wear eye or face protection. Wear respiratory protection. Keep away from heat, hot sur

faces, sparks, open flames and other ignition sources. No smoking.

Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking

tools. Take action to prevent static discharges. Do not breathe vapor.

Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response: Immediately call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air

and keep comfortable for breathing. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of

water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage: Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal: Dispose of contents and container in accordance with all local, regional, national and

international regulations.

Supplemental label

elements: None known.

Other hazards

Hazards not otherwise classified: None known

3. Composition/information on ingredients:

Product definition: Mixture Physical state: Liquid

Product/ingredient name	Identifiers	%	GHS Classification
1,6-hexanediyl-bis(2-(2-(1-ethylpentyl) -3-oxazolidinyl)ethyl)carbamate	140921-24-0	≥10 - ≤25	SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1
4-chloro-trifluorotoluene	98-56-6	≥10 - ≤18	ACUTE TOXICITY (inhalation) - Category 4 FLAMMABLE LIQUIDS - Category 3
			SKIN IRRITATION - Category 2
			EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B
			SPECIFIC TARGET ORGAN TOXICITY
			(SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
aluminium hydroxid 4-chloro-trifluorotoluene titanium dioxide	21645-51-2 13463-67-7	≥10 - ≤25 ≥10 - ≤25	Not classified. Not classified.
acetone	67-64-1	≥3 - ≤5	FLAMMABLE LIQUIDS - Category 2
			EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY
			(SINGLE EXPOSURE) (Narcotic effects) - Category 3
			, , ,
3-oxazolidinyl)ethyl)carbamate 3,5,5-trimethylcyclohexyl isocyanate	4098-71-9	≤1.3	ACUTE TOXICITY (inhalation) - Category 1 SKIN CORROSION - Category 1
			SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1
			SKIN SENSITIZATION - Category 1
			SPECIFIC TARGET ORGAN TOXICITY (Respiratory tract irritation) - Category 3









Product/ingredient name	Identifiers	%	GHS Classification
Isocyanurate of isophorone diisocyanate	53880-05-0	<1	SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SIN- GLE EXPOSURE)
(R)-p-mentha-1,8-diene	5989-27-5	<1	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1
bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	41556-26-7	<1	SKIN SENSITIZATION - Category 1
fatty acids, C14-18 and C16-18-unsatd., maleated		≤0.3	SKIN IRRITATION - Category 2 SKIN SENSITIZATION - Category 1
trimethylolpropane maleic anhydride	77-99-6 108-31-6	≤0.3 <0.1	TOXIC TO REPRODUCTION - Category 2 ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

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

There are no 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.

4. First Aid Measures:

Description of first aid measures

General: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Eye Contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and get medical attention immediately.

Skin Contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting unless directed to do so by medical personnel. Lower the head so that vomit will not re-enter the mouth and throat.

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.









Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye Contact: Causes serious eye damage.

Inhalation: Harmful if inhaled. 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: Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include; pain, watering and redness

Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing, wheezing and breathing difficulties and asthma.

Skin contact: Adverse symptoms may include; pain or irritation, redness and blistering may occur.

Ingestion: No known significant effects or critical hazards.

Indication of any immediate medical attention and special treatment needed

Notes to physician: If gasses have been inhaled, from the decomposition of the product, symptoms may be delayed.

Specific treatments: No specific treatment

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation: Adverse symptoms may include the following:

wheezing and breathing difficulties

asthma

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur

Ingestion: Adverse symptoms may include the following:

stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: If gasses have been inhaled, from the decomposition of the product, symptoms

may be delayed.

Specific treatments: No specific treatment.









5. Firefighting measures

Extinguishing media

Recommended: alcohol resistant foam, CO2, powders, water spray.

Not to be used: waterjet.

Hazards from the substance or mixture :

Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful 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 combustion products: Decomposition products may include the following materials: carbon oxides nitrogen oxidesphosphorus oxides halogenated compounds carbonyl halides metal oxide/oxides

Advice for firefighters

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. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid all direct contact with the spilled material. Exclude sources of ignition and be aware of explosion hazard. Ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

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.

Methods and materials for containment and cleaning up

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 noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilled product.

Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.









7. Handling and Storage

Precautions for safe handling

Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits. In addition, the product should be used only in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. No sparking tools should be used. Contains isocyanates. Exposure to isocyanate may result in acute irritation and/or sensitisation when breathing.

Care should be taken when re-opening partly-used containers.

Avoid inhalation of vapour, dust and spray mist. Avoid contact with skin and eyes. Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Appropriate personal protective equipment: see Section 8. Always keep in containers made from the same material as the original one.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations for flammable liquids. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep out of the reach of children. Keep away from: Oxidizing agents, strong alkalis, strong acids as well as of amines, alcohols and water. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.

This product may be applied using several application techniques and methods of handling may be different for each. Application techniques include [but are not limited to] brushing, rolling, and spray application [conventional, HPLV, airless, pleural component or aerosol can]. Avoid the breathing of vapors and, if spraying, do not breath spray mist or aerosols.









8. Exposure Controls and Personal Protection:

Product/ingredient name	Exposure limit values
aluminium hydroxide	ACGIH TLV (United States, 3/2019).
, ,	TWA: 1 mg/m ³ 8 hours. Form: Respirable fraction
acetone	ACGIH TLV (United States, 3/2019).
	TWA: 250 ppm 8 hours.
	STEL: 500 ppm 15 minutes.
	NIOSH REL (United States, 10/2016).
	TWA: 250 ppm 10 hours.
	TWA: 590 mg/m ³ 10 hours.
	OSHA PEL (United States, 5/2018).
	TWA: 1000 ppm 8 hours.
	TWA: 2400 mg/m ³ 8 hours.
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	ACGIH TLV (United States, 3/2019).
	TWA: 0.005 ppm 8 hours.
	NIOSH REL (United States, 10/2016).
	Absorbed through skin.
	STEL: 0.18 mg/m3 15 minutes.
	STEL: 0.02 ppm 15 minutes.
	TWA: 0.045 mg/m3 10 hours.
	TWA: 0.005 ppm 10 hours.
titanium dioxide	OSHA PEL (United States, 5/2018).
	TWA: 15 mg/m3 8 hours. Form: Total dust
	ACGIH TLV (United States, 3/2019).
	TWA: 10 mg/m3 8 hours.
(R)-p-mentha-1,8-diene	AIHA WEEL (United States, 7/2018).
() p menua 1,0 diene	TWA: 30 ppm 8 hours.
maleic anhydride	ACGIH TLV (United States, 3/2019). Skin sensitizer.
	Inhalation sensitizer.
	TWA: 0.01 mg/m3 8 hours. Form: Inhalable fraction and
	vapor
	NIOSH REL (United States, 10/2016).
	TWA: 1 mg/m3 10 hours.
	TWA: 0.25 ppm 10 hours.
	OSHA PEL (United States, 5/2018).
	TWA: 1 mg/m3 8 hours.
	TWA: 0.25 ppm 8 hours.

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.









Exposure controls

Appropriate engineering controls

Provide local exhaust and general ventilation systems to maintain airborne concentrations below OSHA, ACGIH, and manufacturer recommended exposure limits. Local exhaust ventilation is preferred because it prevents contaminant dispersion into work areas by controlling it at its source. Use local and general exhaust ventilation to effectively remove and prevent buildup of mists/vapors/fumes generated from the handling of this product.

Note: Local exhaust ventilation is designed to capture an emitted contaminant at or near its source, before the contaminant has a chance to disperse into the workplace air. General exhaust ventilation, also called dilution ventilation, is different from local exhaust ventilation because instead of capturing emissions at their source and removing them from the air, general exhaust ventilation allows the contaminant to be emitted into the workplace air and then dilutes the concentration of the contaminant to an acceptable level (e.g., to the PEL or below).

Individual protection measures

General:

Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. Safety eyewear should be used when there is a likelihood of exposure.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.

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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection:

Wear chemical-resistant gloves in combination with 'basic' employee training. The quality of the chemical-resistant protective gloves must be chosen as a function of the specific workplace concentrations and quantity of hazardous substances.

Since the actual work situation is unknown. Supplier of gloves should be contacted in order to find the appropriate type. Below listed glove(s) should be regarded as generic advice:

Recommended: Silver Shield / Barrier / 4H gloves, butyl rubber

Short term exposure: natural rubber (latex)

May be used: nitrile rubber, neoprene rubber, polyvinyl alcohol (PVA), polyvinyl chloride (PVC), Viton®









Body Protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved handling this product.

Wear suitable protective clothing. Always wear protective clothing when spraying.

Respiratory protection:

If working areas have insufficient ventilation, wear half or totally covering mask equipped with gas filter of type Organic Vapor, when grinding use particle filter of type P95, P99 or P100. When spraying use a combined filter (organic vapor / HEPA or organic vapor / P100 type). Be sure to use approved/certified respirator or equivalent. Always wear an air-fed respirator when spraying in a continuous and prolonged work situation (e.g. hood with supply of fresh or compressed air or a full face, powered air purifying filter).

This product contains low-boiling point liquids. Any respiratory protective equipment should be air-fed or organic vapor filter (Type AX).

Protective clothing (pictograms):



Note: Application of paint products by spraying requires additional safety precautions: Full body suit, Full face respirator with air supplied.

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.









9. Physical and Chemical Properties:

Information on basic physical and chemical properties

Physical state : Liquid.
Color : White
Odor : Solvent-like

pH: Testing not relevant or not possible due to nature of the product. Melting point/freezing point: Testing not relevant or not possible due to nature of the product. Boiling point/boiling range: Testing not relevant or not possible due to nature of the product.

Flash point: Closed cup: 16°C (60.8°F)

Evaporation rate: Testing not relevant or not possible due to nature of the product.

Flammability: Highly flammable in the presence of the following materials or conditions: open

flames, sparks and static discharge and heat.

Flammable in the presence of the following materials or conditions: oxidizing

materials and reducing materials.

Upper/lower flammability or

explosive limits: 0.7 - 13 vol %

Vapor pressure: 0.009 kPa This is based on data for the following ingredient:

Poly[oxy(methyl-1,2-ethanediyl)], α -hydro ω -hydroxy-,

polymer with 1,3-diisocyanatomethylbenzene

Vapor density: Testing not relevant or not possible due to nature of the product.

Relative density: 1.276 g/cm3

Solubility(ies): Easily soluble in the following materials: cold water and hot water.

Partition coefficient

(LogKow): Testing not relevant or not possible due to nature of the product.

Auto-ignition temperature: Testing not relevant or not possible due to nature of the product.

Decomposition

temperature: Testing not relevant or not possible due to nature of the product.
Viscosity: Testing not relevant or not possible due to nature of the product.
Explosive properties: Explosive in the presence of the following materials or conditions:

oxidizing materials and reducing materials.

Oxidizing properties: Testing not relevant or not possible due to nature of the product.

Other information

Solvent(s) % by weight

(Included excempt solvent(s)): 19.2 % (w/w)

Water % by weight: Weighted average: 0 % VOC content (Coatings): 0.203 lbs/gal (24.4 g/l) VOC content (Regulatory): 0.25 lbs/gal (30 g/l)

TOC Content (Volatile): Weighted average: 119 g/l Solvent Gas: Weighted average: 0.048 m3/l









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

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials

Extremely reactive or incompatible with the following materials: alkalis.

11. Toxicological Information:

Information on toxicological effects

Exposure to component solvent vapor concentrations may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Solvents may cause some of the above effects by absorption through the skin. Symptoms and signs include headaches, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. If splashed in the eyes, the liquid may cause irritation and reversible damage. Accidental swallowing may cause stomach pain. Chemical lung inflammation may occur if the product is taken into the lungs via vomiting.

Isocyanate containing products have characteristics that include producing acute irritation and/or sensitisation when breathing, subsequent asthmatic problems and lung contractions. Sensitised people can, as a result from this, show asthmatic symptoms with exposure to atmospheric concentrations far below the TLV. Repeated exposures will lead to permanent damage to the respiratory system.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4-chloro-trifluorotoluene	LC50 Inhalation Vapor	Rat	33 mg/l	4 hours
	LD50 Dermal	Rat	>3300 mg/kg	-
	LD50 Oral	Rat	13000 mg/kg	-
aluminium hydroxide	LD50 Oral	Rat	>5000 mg/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.8 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
acetone	LD50 Oral	Rat	5800 mg/kg 0.03	-
3-isocyanatomethyl	LC50 Inhalation Dusts and mists	Rat Male	mg/l	4 hours
3,5,5-trimethylcyclohexyl		Female Rat		-
isocyanate	LD50 Oral	Rat	4825 mg/kg >5	4 hours
	LC50 Inhalation Dusts and mists		mg/l	-
Isocyanurate of isophorone		Rat		-









Product/ingredient name	Result	Species	Dose	Exposure
diisocyanate				
	LD50 Oral	Rabbit	>20000 mg/kg	
(R)-p-mentha-1,8-diene	LD50 Dermal	Rat	>5000 mg/kg	
	LD50 Oral	Rat	4400 mg/kg	
bis (1,2,2,6,6-pentamethyl	LD50 Dermal		>2000 mg/kg	
4-piperidyl) sebacate				
	LD50 Oral	Rat	>2000 mg/kg	
trimethylolpropane	LD50 Oral	Rat	14100 mg/kg	
maleic anhydride	LD50 Dermal	Rabbit	2620 mg/kg	
	LD50 Oral	Rat	1090 mg/kg	

Acute toxicity estimates

Route	ATE value
Inhalation (dusts and mists)	2.97 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure
4-chloro-trifluorotoluene	Skin - Irritant	Rabbit	-	-
	Eyes - Irritant	Rabbit	-	-
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermit-
acetone	Eyes - Mild Irritant	Human	-	tent186300 parts per million 24 hours
	Eyes - Moderate irritant	Rabbit	-	20 milligrams 24 hours 500 milligrams
	Skin - Mild irritant	Rabbit	-	-
Isocyanurate of isophorone	Eyes - Mild Irritant	Rabbit	-	24 hours 10 Percent
diisocyanate				1 Percent
(R)-p-mentha-1,8-diene ma-	Skin - Mild irritant	Rabbit		-
leic anhydride	Eyes - Severe irritant	Rabbit		
•	Skin - Severe irritant	Rabbit		

Sensitizer

Product/ingredient name	Route of exposure	Species	Result
4-chloro-trifluorotoluene Isocyanurate of isophorone diisocyanate	skin skin	Mouse Guinea pig	Sensitizing Sensitizing
bis (1,2,2,6,6-pentamethyl 4-piperidyl) sebacate	skin	Guinea pig	Sensitizing









Carcinogen Classification

Product/ingredient name	IARC	NTP	OSHA
quartz (chrystalline, non respirable) titanium dioxide respirable quartz m-tolylidene diisocyanate	1 2B 1 2B	Known to be a human carcinogen Known to be a human carcinogen.Reasonably anticipated to be a human carcinogen.	-
			-

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
4-chloro-trifluorotoluene	Category 3		Respiratory tract irritation
acetone 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	Category 3 Category 3		Narcotic effects Respiratory tract irritation
Isocyanurate of isophorone diisocyanate	Category 3		Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
quartz (chrystalline, non respirable) respirable quartz	Category 1	inhalation	lungs
	Category 1	inhalation	lungs

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential chronic health effects

Sensitization: Contains 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, Isocyanurate of isophorone diisocyanate, (R)-p-mentha-1,8-diene, bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate. May produce an allergic reaction.

Other information:

No additional known significant effects or critical hazards.









12. Ecological Information:

Toxicity

Do not allow to enter drains or watercourses. Harmful to aquatic life with long lasting effects. When spilled, this product may act as an oil, causing a film, sheen, emulsion, or sludge at or beneath the surface of a body of water. Oils of any kind can cause: (a) drowning of waterfowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility; (b) lethal effect on fish by coating gill surfaces, preventing respiration; (c) potential fish kills resulting from alteration in biochemical oxygen demand; (d) asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom; and (e) adverse aesthetic effects of fouled shoreline and beaches.

Product/ingredient name	Result	Species	Exposure
4-chloro-trifluorotoluene	Acute IC50 2 mg/l	Daphnia	48 hours
	Acute LC50 3 mg/l	Fish	96 hours
titanium dioxide	Acute LC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
acetone	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae Dapnia	21 days
	Chronic NOEC 0.1 ml/L Fresh water	- Daphnia magna -	21 days
(R)-p-mentha-1,8-diene	Acute EC50 421 µg/l Fresh water Acute	NeonateDaphnia - Daphnia magna	48 hours
	EC50 688 μg/l Fresh water	Fish - Pimephales promelas -	96 hours
		Juvenile (Fledgling, Hatchling,	72 hours
bis (1,2,2,6,6-pentamethyl	Acute EC50 1.68 mg/l	Weanling) Aquatic plants	96 hours
4-piperidyl) sebacate			
	Acute LC50 0.97 mg/l Fresh water	Fish - Lepomis macrochirus	

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
4-chloro-trifluorotoluene	OECD 301D 301D Ready Biodegradability - Closed Bottle Test	19.2 % - Not readily - 28 days		

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
4-chloro-trifluorotoluene Isocyanurate of isophorone diisocyanate	-	-	Not readily Not readily









Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
4-chloro-trifluorotoluene acetone 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (R)-p-mentha-1,8-diene trimethylolpropane maleic anhydride	3.7 -0.23 0.99 4.38 -0.47 -2.78	- - - - <1	low low low high low low

Mobility in soil

Soil/water partition coefficient (KOC):

Mobility:

No known data avaliable in our database. No known data avaliable in our database.

Other adverse effects

No known significant effects or critical hazards.

13. Disposal considerations

Waste treatment methods

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements. The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7 and Section 8 for additional handling information and protection of employees.

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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS#	Status	Reference number
Acetone (I); 2-Propanone (I)	67-64-1	Listed	U002









14. Transport Information

	14.1 UN no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
DOT Code	UN1263	PAINT (1,6-hexanediyl-bis(2-(2-3 II (1-ethylpentyl)-3-ox-azolidinyl)ethyl) carbamate)	3 -	11	Yes.	The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes. 21786.1 lbs / 9890.9 kg [2047.7 gal / 7751.5 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements. (carbendazim
TDG Code	UN1263	PAINT (1,6-hexanediyl-bis(2-(2- (1-ethylpentyl)-3-oxazo- lidinyl)ethyl) carbamate)	3	II	Yes.	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark). The marine pollutant mark is not required
SCT- Code	UN1263	PAINT	3 - Promote Ligation	II	Yes.	
IMDG Code	UN1263	PAINT (1,6-hexanedi- yl-bis(2-(2- 3 (1-ethylpentyl)-3-oxazo- lidinyl)ethyl) carbamate)	3 -	II	Yes.	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules F-E, S-E
IATA Code	UN1263	PAINT	3 -	II	Yes.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

Code : Classification PG* : Packing group

Env.*: Environmental hazards

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.

Transport in bulk according to IMO instruments

Not Applicable









15. Regulatory Information:

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

U.S. Federal regulations: All components are active or exempted.

TSCA 4(a) final test rules: 4-chloro-trifluorotoluene; nonane

TSCA 8(a) PAIR: 4-chloro-trifluorotoluene; silica/polydimethylsiloxane

reactionproduct; methyl formate; nonane

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

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

TSCA 8(c) calls for record of SAR: m-tolylidene diisocyanate

TSCA 12(b) one-time export: 4-chloro-trifluorotoluene Clean Water Act (CWA) 307: benzene; ethylbenzene

Clean Water Act (CWA) 311: benzene; xylene; ethylbenzene; phosphoric acid

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs): Listed

Product/ingredient name	CAS number	Concentration
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate 2-(2-butoxye-	4098-71-9	1.0093
thoxy)ethyl acetate	124-17-4	0.43738
methanol	67-56-1	0.00149`
xylene	1330-20-7	0.095832
ethylbenzene	100-41-4	0.02072
maleic anhydride	108-31-6	0.0012924

Clean Air Act Section 602 Class I Substances: Not listed Clean Air Act Section 602 Class II Substances: Not Listed DEA List I Chemicals (Precursor Chemicals): Not listed DEA List II Chemicals (Essential Chemicals): Listed

SARA 302/304:

			SARA 302 TPQ		SARA 304 RQ	
Product/ingredient name	%	EHS	(lbs)	(gallons)	(lbs)	(gallons)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	≤1.3	Yes.	500	56.7	500	56.7
1-chloro-2,3-epoxypropane	<0.1	Yes.	1000	101.6	100	10.2

SARA 304 RQ: 49537.3 lbs / 22489.9 kg [4656.1 gal / 17625.3 L]









SARA 311/312 Classification : FLAMMABLE LIQUIDS - Category 2

ACUTE TOXICITY (inhalation) - Category 4

SKIN IRRITATION - Category 2

SERIOUS EYE DAMAGE - Category 1

RESPIRATORY SENSITIZATION - Category 1

SKIN SENSITIZATION - Category 1

TOXIC TO REPRODUCTION - Category 2

Product/ingredient name	%	Classification
1,6-hexanediyl-bis(2-(2-(1-ethylpentyl) -3-oxazolidinyl)ethyl)carbamate		SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1
4-chloro-trifluorotoluene	≥10 - ≤18	FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A
		SKIN SENSITIZATION - Category 1B
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
acetone	≥3 - ≤5	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
3-Isocyanurate of isophorone diisocyanate	<1.3	ACUTE TOXICITY (inhalation) - Category 1
		SKIN CORROSION - Category 1
		SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1
		SKIN SENSITIZATION - Category 1
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
Isocyanurate of isophorone diisocyanate	<1	(Respiratory tract irritation) - Category 3 SKIN SENSITIZATION - Category 1
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 (R)-p-mentha-1,8-diene	<1	FLAMMABLE LIQUIDS - Category 3
		SKIN IRRITATION - Category 2
		SKIN SENSITIZATION - Category 1
bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate fatty acids, C14-18 and C16-18-	<1 <0.3	SKIN SENSITIZATION - Category 1 SKIN IRRITATION - Category 2
unsatd., maleated	<0.5	SKIN SENSITIZATION - Category 1
trimethylolpropane	≤0.3	TOXIC TO REPRODUCTION - Category 2
maleic anhydride	<0.1	ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1
		RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1A
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1









SARA 313: SARA 313 notifications must not be detached from the MSDS and any copying and re

distribution of the MSDS shall include copying and redistribution of the notice attached

to copies of the MSDS subsequently redistributed.

Form R - Reporting requirements and Supplier Notification

Product/ingredient name	CAS number	Concentration
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9	1 - 3

Supplier Notification:

Product/ingredient name	CAS number	Concentration
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9	1 - 3

State Regulations:

Connecticut Carcinogen Reporting: None of the components are listed.

Connecticut Hazardous Material Survey: None of the components are listed.

Florida substances: None of the components are listed.

Illinois Chemical Safety Act: None of the components are listed.

Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.

Louisiana Reporting: None of the components are listed.

Louisiana Spill: None of the components are listed.

Massachusetts Spill: None of the components are listed.

Massachusetts Substances: The following components are listed: SILICA, CRYSTALLINE, QUARTZ;

SILICA, CRYSTALLINE, QUARTZ; ACETONE; TITANIUM DIOXIDE; TIN DIOXIDE DUST

Michigan Critical Material: None of the components are listed.

Minnesota Hazardous Substances: None of the components are listed.

New Jersey Hazardous Substances: The following components are listed: TOLUENE

DIISOCYANATE (mixed isomers); BENZENE, 1,3-DIISOCYANATOMETHYL-; SILICA, QUARTZ; QUARTZ (SiO2); SILICA, QUARTZ; QUARTZ (SiO2); ACETONE; 2-PROPANONE; TITANIUM

DIOXIDE; TITANIUM OXIDE (TiO2); CARBON BLACK

New Jersey Spill: None of the components are listed.

New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.

New York Acutely Hazardous Substances: The following components are listed: Toluene

diisocyanite; Acetone; 2-Propanone

New York Toxic Chemical Release Reporting: None of the components are listed.

Pennsylvania RTK Hazardous Substances: The following components are listed: BENZENE,

2,4-DIISOCYANATOMETHYL-; QUARTZ DUST; QUARTZ; QUARTZ DUST; QUARTZ;

2-PROPANONE; TITANIUM OXIDE; CARBON BLACK

Rhode Island Hazardous Substances: None of the components are listed.









California Prop. 65 PFF:

WARNING: This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including p-chloro-α,α,α-trifluorotoluene, Silica, crystalline, Titanium dioxide, Silica, crystalline, Toluene diisocyanate, Carbon black and Ethylbenzene, which are known to the State of California to cause cancer, and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Product/ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
4-chloro-trifluorotoluene	Yes.	No.	Yes.	Yes.
titanium dioxide	Yes.	No.		
diuron (ISO)	Yes.	No.	Yes.	
ethylbenzene	Yes.	No.		
methanol	No.	Yes.	Yes.	
1-chloro-2,3-epoxypropane	Yes.	Yes.		
naphthalene	Yes.	No.		

16. Other Information:

Remarks: Note: In USA, consult Code of Federal Regulations, Title 29, Labor, Parts 1910 and 1915

> concerning occupational safety and health standards and regulations, as well as any other applicable Federal, State or local regulations that apply to safe practices in coating operations. Warning! If you scrape, sand, or remove old paint, you may release lead dust. LEAD is TOXIC.

Validation: Validated by US - HSE Products Coordinator on 16 April 2020

GHS Classification

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method

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



National Fire Protection Association (U.S.A.)











Personal Protective Equipment (PPE) shown in this section is a suggestion. Since conditions vary from one work location to another consult the facility safety & health program. Customer or end user is responsible to evaluate worker exposure conditions at the site of application and determine the appropriate PPE suitable for workers at that particular facility or location.

Abbreviations and acronyms:

ANSI = American National Standards Institute

HCS = Hazardous Communication System

TSCA = Toxic Substances Control Act

CFR = Code of federal Regulations

GHS = Globally Harmonized System of Classification and Labelling of Chemicals OSHA = United States Occupational Health and Safety Administration NIOSH = National Institute for Occupational Safety and Health ACGIH = American Conference of Industrial Hygienists

IARC = International Agency for Research on Cancer.

NTP = National Toxicology Program

ATE = Acute Toxicity Estimate

OECD = Organisation for Economic Co-operation and Development BCF = Bioconcentration Factor

DOT = United States Department of Transportation ERG = Emergency Response Guide

TDG = Transport of Dangerous Goods, Canada SCT =
Transportation & Communications Ministry, Mexico IMDG
= International Maritime Dangerous Goods IATA = International Air Transport Association SARA = Superfund
Amendments Reauthorization Act EPCRA = Emergency
Planning and Community Right to Know Act

Notice to reader

Indicates information that has changed from previously issued version.

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