

Conforms to ANSI Z400.1-2010 Standard - HCS 2012

 Protective Clothing
 General Hazard
 DOT

 Image: Clothing in the second se

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

 Product name :
 UREPRIME HS2 PRIMER CORAL

 Product identity :
 1504957920, 33114

 Product type :
 primer (base for multi-component product)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Field of application :	buildings and metal industry.
Ready-for-use mixture :	Mixing Ratio: 15040 = 15049 3 Vol. / 95041 1 Vol.
Identified uses :	Industrial/Professional use
TSCA :	Unless otherwise stated. All components are listed or exempted.

1.3 Details of the supplier of the safety data sheet

Dallas, TX 75235 Phone number: 1-214-353-1600 E-mail: hempel@hempel.com	Company details :	Phone number: 1-214-353-1600
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1.4 Emergency telephone number (with hours of operation)

For Transportation Emergencies : (24 hours)	CHEMTREC: 1-800-424-9300 (Toll-free in the U.S., Canada and the U.S. Virgin Islands) 703-527-3887 For calls originating elsewhere (Collect calls are accepted). Contract number: CCN10384 To preserve the effectiveness of arrangements for providing accurate and timely emergency response information, the basic identifying information (shipper name or contract number) must be included on shipping papers. If the purchaser of this product is going to be shipping this product to other locations, the purchaser must arrange for its own Emergency Information Provider to respond to transport incidents. Hempel's 24 hour response contract does not cover non-Hempel shipments.
For all other information :	In USA toll free calling available: 1-800- 678-6641 or (936)-523-6000
(8 AM - 5 PM CST)	See Section 4 of the safety data sheet (first aid measures).

SECTION 2: Hazards identification

2.1 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 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

2.2 Label elements

Hazard pictograms :





SECTION 2: Hazards identification

Signal word :	Danger
Hazard statements :	H226 - Flammable liquid and vapor. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H350 - May cause cancer. H372 - Causes damage to organs through prolonged or repeated exposure. (lungs)
Precautionary statements :	
Prevention :	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, 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. Keep container tightly closed. Do not breathe vapor, mist or spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.
Response :	IF exposed or concerned: Get medical advice or attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or 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 advice or attention.
Storage :	Store locked up. Store in a well-ventilated place. Keep cool.
Disposal :	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements :	None known.

2.3 Other hazards

Hazards not otherwise classified : None known.

SECTION 3: Composition/information on ingredients

Product definition :	Mixture
Physical state :	Liquid.

Product/ingredient name	Identifiers	%	GHS Classification
barium sulphate	7727-43-7	≥10 - ≤25	Not classified.
Talc (non-asbestiform)	14807-96-6	≥10 - ≤25	Not classified.
wollastonite	13983-17-0	≥10 - ≤25	Not classified.
heptan-2-one	110-43-0	≥5 - ≤10	FLAMMABLE LIQUIDS - Category 3
			ACUTE TOXICITY (oral) - Category 4
			ACUTE TOXICITY (inhalation) - Category 4
titanium dioxide	13463-67-7	≥5 - ≤10	Not classified.
middle molecular epoxy resin MMW	25068-38-6	≥5 - ≤10	SKIN IRRITATION - Category 2
700-1200			EYE IRRITATION - Category 2A
			SKIN SENSITIZATION - Category 1
respirable quartz	14808-60-7	≥5 - ≤10	CARCINOGENICITY - Category 1A
			SPECIFIC TARGET ORGAN TOXICITY (REPEATED
			EXPOSURE) - Category 1
n-butyl acetate	123-86-4	≥5 - ≤10	FLAMMABLE LIQUIDS - Category 3
			SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
2 mothulpontono 1 5 diol	4457-71-0	≥1 - ≤3	(Narcotic effects) - Category 3 EYE IRRITATION - Category 2B
3-methylpentane-1,5-diol xylene	1330-20-7	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3
xyierie	1330-20-7	≥1-≥3	ACUTE TOXICITY (dermal) - Category 4
			ACUTE TOXICITY (inhalation) - Category 4
			SKIN IRRITATION - Category 2
zeolites	1318-02-1	≥1 - ≤3	Not classified.
pigment Red 101, 77491 (Iron oxide)	1309-37-1	≥1 - ≤3	Not classified.
ethylbenzene	100-41-4	<1	FLAMMABLE LIQUIDS - Category 2
			ACUTE TOXICITY (inhalation) - Category 4
			CARCINOGENICITY - Category 2
			SPECIFIC TARGET ORGAN TOXICITY (REPEATED
			EXPOSURE) - Category 2
			ASPIRATION HAZARD - Category 1



SECTION 3: Composition/information on ingredients

1	4-morpholinecarbaldehyde	4394-85-8	≤0.3	SKIN SENSITIZATION - Category 1
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Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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

SECTION 4: First aid measures

4.1 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. Seek immediate medical attention.	
Inhalation :	Remove to fresh air. Keep person warm and at rest. If unconscious, place in recovery position and seek medical advice.	
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. 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.	

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects	
Eye contact :	Causes serious eye irritation.
Inhalation :	No known significant effects or critical hazards.
Skin contact :	Causes skin irritation. May cause an allergic skin reaction.
Ingestion :	No known significant effects or critical hazards.
Over-exposure signs/symptoms	
Eye contact :	Adverse symptoms may include the following: pain or irritation watering redness

Inhalation :	No specific data.
Skin contact :	Adverse symptoms may include the following: irritation redness
Ingestion :	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician :	Not applicable.
Specific treatments :	No specific treatment.



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SECTION 5: Firefighting measures

5.1 Extinguishing media

Extinguishing media :	Recommended: alcohol resistant foam, CO₂, powders, water spray. Not to be used: waterjet.
5.2 Special hazards arising fror	n the substance or mixture
Hazards from the substance or	Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard

Hazards from the substance or	Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated,
mixture :	a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
	This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material
	must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products :	Decomposition products may include the following materials: carbon oxides sulfur oxides phosphorus
	oxides halogenated compounds metal oxide/oxides

5.3 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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.

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 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 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). Use spark-proof tools and explosion-proof equipment. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 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.

SECTION 7: Handling and storage

7.1 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 epoxy constituents. Avoid all possible skin contact with epoxy and amine containing products, they may cause allergic reactions.

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.

7.2 Conditions for safe storage, including any incompatibilities



SECTION 7: Handling and storage

Store in accordance with local regulations. 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. No smoking. Prevent unauthorized access. Containers that are opened must be carefully resealed and kept upright to prevent leakage.

7.3 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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Product/ingredient name	Exposure limit values
barium sulphate	ACGIH TLV (United States, 3/2020). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction 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 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
Talc (non-asbestiform)	ACGIH TLV (United States, 3/2020). TWA: 0.1 f/cc 8 hours. Form: Respirable fibers: length greater than 5 uM; aspect ratio equal to or greater than 3:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective) phase contrast illumination. OSHA PEL Z3 (United States, 6/2016). TWA: 0.1 f/cc 8 hours. Form: containing asbestos STEL: 1 f/cc 30 minutes. Form: containing asbestos
wollastonite	ACGIH TLV (United States, 3/2020). TWA: 1 mg/m ³ 8 hours. Form: Inhalable fraction
heptan-2-one	ACGIH TLV (United States, 3/2020). TWA: 233 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. NIOSH REL (United States, 10/2016). TWA: 465 mg/m ³ 10 hours. TWA: 100 ppm 10 hours. OSHA PEL (United States, 5/2018). TWA: 465 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
titanium dioxide	OSHA PEL (United States, 5/2018). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2020). TWA: 10 mg/m ³ 8 hours.
respirable quartz	 OSHA PEL Z3 (United States, 6/2016). TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable OSHA PEL (United States, 5/2018). TWA: 50 µg/m³ 8 hours. Form: Respirable dust ACGIH TLV (United States, 3/2020). TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction NIOSH REL (United States, 10/2016). TWA: 0.05 mg/m³ 10 hours. Form: respirable dust
n-butyl acetate	NIOSH REL (United States, 10/2016). TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 710 mg/m³ 8 hours. TWA: 710 mg/m³ 8 hours. ACGIH TLV (United States, 3/2020). STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.



SECTION 8: Exposure controls/personal protection

xylene	ACGIH TLV (United States, 3/2020). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours.
zeolites	ACGIH TLV (United States, 3/2020). TWA: 1 mg/m ³ 8 hours. Form: Respirable fraction
pigment Red 101, 77491 (Iron oxide)	NIOSH REL (United States, 10/2016). TWA: 5 mg/m³, (as Fe) 10 hours. Form: Dust and fumes OSHA PEL (United States, 5/2018). TWA: 10 mg/m³ 8 hours. Form: Fume TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2020). TWA: 5 mg/m³ 8 hours. Form: Respirable fraction
ethylbenzene	ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. NIOSH REL (United States, 10/2016). STEL: 545 mg/m ³ 15 minutes. STEL: 125 ppm 15 minutes. TWA: 435 mg/m ³ 10 hours. TWA: 100 ppm 10 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m ³ 8 hours. TWA: 100 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.

8.2 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.

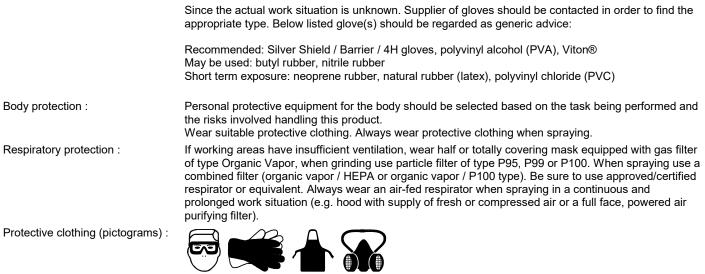
Note: Local exhaust ventilation is designed to capture an emitted contaminant at or near its source, before the contaminant has a chance to disperse into the workplace air. General exhaust ventilation, also called dilution ventilation, is different from local exhaust ventilation because instead of capturing 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.
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.



SECTION 8: Exposure controls/personal protection



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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state :	Liquid.
Color :	Light red
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: 34°C (93.2°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.
Upper/lower flammability or explosive limits :	0.8 - 9.8 vol %
Vapor pressure :	Testing not relevant or not possible due to nature of the product.
Vapor density :	Testing not relevant or not possible due to nature of the product.
Relative density :	1.628 g/cm ³
Solubility(ies) :	Easily soluble in the following materials: diethyl ether and acetone. Soluble in the following materials: methanol and n-octanol. Very slightly 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 :	Slightly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge.
Oxidizing properties :	Testing not relevant or not possible due to nature of the product.



SECTION 9: Physical and chemical properties

9.2 Other information

Solvent(s) % by weight (Included excempt solvent(s)):	25 % (w/w)
Water % by weight :	Weighted average: 0 %
VOC content (Coatings) :	3.39 lbs/gal (406.5 g/l)
VOC content (Regulatory) :	3.39 lbs/gal (406.6 g/l)
TOC Content (Volatile):	Weighted average: 154 g/l
Solvent Gas :	Weighted average: 0.081 m³/l

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 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.

10.5 Incompatible materials

Highly reactive or incompatible with the following materials: oxidizing materials. Reactive or incompatible with the following materials: reducing materials, organic materials, acids, alkalis and moisture.

10.6 Hazardous decomposition products

When exposed to high temperatures (i.e. in case of fire) harmful decomposition products may be formed:

Decomposition products may include the following materials: carbon oxides sulfur oxides phosphorus oxides halogenated compounds metal oxide/oxides

SECTION 11: Toxicological information

11.1 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.

Epoxy and amine containing products can cause skin disorders such as allergic eczema. The allergy may arise after only a short exposure period.

Acute toxicity



SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
barium sulphate	LD50 Oral	Rat	>15000 mg/kg	-
heptan-2-one	LD50 Dermal	Rabbit	12600 uL/kg	-
	LD50 Oral	Rat	1600 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	-
middle molecular epoxy resin MMW	LD50 Dermal	Rat	>2000 mg/kg	-
700-1200				
n-butyl acetate	LC50 Inhalation Vapor	Rat	>21 mg/l	4 hours
	LD50 Dermal	Rabbit	>14112 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
3-methylpentane-1,5-diol	LD50 Oral	Rat	8 g/kg	-
xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
-	LC50 Inhalation Vapor	Rat	6350 ppm	4 hours
	LD50 Dermal	Rabbit	>4200 mg/kg	-
	LD50 Oral	Rat	3523 mg/kg	-
zeolites	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>10000 mg/kg	-
pigment Red 101, 77491 (Iron oxide)	LD50 Oral	Rat	>5000 mg/kg	-
ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
-	LD50 Oral	Rat	3500 mg/kg	-

Acute toxicity estimates

Route	ATE value
Oral	16810.55 mg/kg
Dermal	51161.36 mg/kg
Inhalation (gases)	232551.64 ppm
Inhalation (vapors)	94.28 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure
barium sulphate	Eyes - Mild irritant	Rabbit	-	-
Talc (non-asbestiform)	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent
heptan-2-one	Skin - Mild irritant	Rabbit	-	24 hours 14 milligrams
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent
n-butyl acetate	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams
-	Eyes - Mild irritant	Rabbit	-	-
	Respiratory - Mild irritant	Rabbit	-	-
3-methylpentane-1,5-diol	Eyes - Irritant	Rabbit	-	-
	Skin - Mild irritant	Rabbit	-	-
xylene	Eyes - Severe irritant	Rabbit	-	24 hours 5 milligrams
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams
	Skin - Irritant	Rabbit	-	-
ethylbenzene	Skin - Mild irritant	Rabbit	-	24 hours 15 milligrams
2	Respiratory - Mild irritant	Rabbit	-	-
	Eyes - Mild irritant	Rabbit	-	-
4-morpholinecarbaldehyde	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams

Sensitizer

Product/ingredient name	Route of exposure	Species	Result
middle molecular epoxy resin MMW 700-1200	skin	Guinea pig	Sensitizing

Carcinogen Classification



SECTION 11: Toxicological information

Product/ingredient name	IARC	NTP	OSHA
Talc (non-asbestiform)	1	-	-
wollastonite	3	-	-
titanium dioxide	2B	-	-
respirable quartz	1	Known to be a human carcinogen.	-
xylene	3	-	-
zeolites	3	-	-
pigment Red 101, 77491 (Iron oxide)	3	-	-
ethylbenzene	2B	-	-

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
respirable quartz	Category 1	inhalation	lungs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Product/ingredient name	Result	
ethylbenzene	ASPIRATION HAZARD - Category 1	

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential chronic health effects

Sensitization :	Contains middle molecular epoxy resin MMW 700-1200, 4-morpholinecarbaldehyde. May produce an allergic reaction.
Other information :	No additional known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

Do not allow to enter drains or watercourses. Toxic 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
titanium dioxide	Acute LC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
middle molecular epoxy resin MMW 700-1200	Acute EC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
n-butyl acetate	Acute EC50 648 mg/l	Algae	72 hours
-	Acute EC50 44 mg/l	Daphnia	48 hours
3-methylpentane-1,5-diol	Acute EC50 >1000 mg/l	Algae	72 hours
	Acute EC50 >1000 mg/l	Daphnia	48 hours
	Acute LC50 >100 mg/l	Fish	96 hours
zeolites	Acute EC50 300 mg/l	Algae	96 hours
	Acute EC50 >100 mg/l	Daphnia	48 hours
	Acute LC50 >680 mg/l	Fish	96 hours
pigment Red 101, 77491 (Iron oxide)	Acute EC50 >100 mg/l	Daphnia	48 hours
ethylbenzene	Chronic NOEC <1000 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours



SECTION 12: Ecological information

12.2 Persistence and degradability

Product/ingredient name	Test	Result		Dose		Inoculum
n-butyl acetate	-	90 % - Readi	-		-	
	OECD 301D Ready Biodegradability - Closed Bottle Test	80 % - Readi	ly - 5 days	-		-
xylene	OECD 301F Ready Biodegradability - Manometric Respirometry Test	90 - 98 % - Readily - 28 days		-		-
	-	>60 % - Rea	dilv - 28 davs	-		-
ethylbenzene	-	>70 % - Rea		-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodegradability	
n-butyl acetate xylene	-		-		Readily Readily	
ethylbenzene	-		-		Readily	

12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
heptan-2-one	2.26	-	low
middle molecular epoxy resin MMW 700-1200	2.64 - 3.78	31	low
n-butyl acetate	2.3	3.1	low
3-methylpentane-1,5-diol	0.03	-	low
xylene	3.12	8.1 - 25.9	low
zeolites	-	0.59 - 0.95	low
ethylbenzene	3.6	-	low
4-morpholinecarbaldehyde	-	<1.9	low

12.4 Mobility in soil

 Soil/water partition coefficient (K_{OC}) :
 No known data avaliable in our database.

 Mobility :
 No known data avaliable in our database.

12.5 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 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.



SECTION 14: Transport information

Transport may take place according to national regulation or DOT for transport by road and by train, IMDG for transport by sea, IATA for Air shipment. Refer to specific Dangerous Goods Transport requirements under 49CFR, ICAO and IATA.

	14.1 UN no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
DOT UN1263 Code		PAINT. (middle molecular epoxy resin MMW 700-1200)		111	Yes.	The marine pollutant mark is not required when transported on inland waterways in sizes of $\leq 5 L$ or $\leq 5 kg$ or by road, rail, or inland air in non-bulk sizes.
						Reportable quantity (xylene) 4572.2 lbs / 2075.8 kg [336.83 gal / 1275 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
TDG Code	UN1263	PAINT. (middle molecular epoxy resin MMW 700-1200)		III	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 when transported by road or rail.
SCT Code	UN1263	PAINT	³ -	111	Yes.	-
IMDG Code	UN1263	PAINT. (middle molecular epoxy resin MMW 700-1200)	3 - ¥2		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 -	111	Yes.	The environmentally hazardous substance mark may appear if required by other transportation regulations.

Code : Classification

PG* : Packing group

Env.* : Environmental hazards

14.6 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.

14.7 Transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

U.S. Federal regulations :

All components are active or exempted.

TSCA 5(a)2 proposed significant new use rules: pentane-2,4-dione
TSCA 6 proposed risk management: lead powder (particle diameter < 1mm)
TSCA 8(a) PAIR: pentane-2,4-dione
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are active or exempted.
Clean Water Act (CWA) 307: trizinc bis(orthophosphate); ethylbenzene; zinc oxide; toluene; lead compounds; lead powder (particle diameter < 1mm)
Clean Water Act (CWA) 311: n-butyl acetate; xylene; ethylbenzene; toluene; acetic acid ; 1-chloro-2,3-epoxypropane; formaldehyde

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



SECTION 15: Regulatory information

Product/ingredient name	CAS number	Concentration
xylene	1330-20-7	2.1871
2-(2-butoxyethoxy)ethyl acetate	124-17-4	0.69765
ethylbenzene	100-41-4	0.48011
toluene	108-88-3	0.034235
2-(2-butoxyethoxy)ethanol	112-34-5	0.005325
lead compounds	1314-41-6	0.00337
1-chloro-2,3-epoxypropane	106-89-8	0.0010562
lead powder (particle diameter < 1mm)	7439-92-1	0.0010178
formaldehyde	50-00-0	0.0010027

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) : Not listed

SARA 302/304 :

			SARA 302 TPQ		SARA 3	04 RQ
Product/ingredient name	%	EHS	(Ibs)	(gallons)	(Ibs)	(gallons)
1-chloro-2,3-epoxypropane formaldehyde	<0.1 ≤0.1	Yes. Yes.	1000 500	101.6 74	100 100	10.2 14.8

SARA 304 RQ :

SARA 311/312 Classification :

9467625.9 lbs / 4298302.2 kg [697476.2 gal / 2640234.7 L]

FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1A SPECIEC TAPCET OPCON TOYICITY (PEPEATE)

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Product/ingredient name	%	Classification
heptan-2-one	≥5 - ≤10	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4
middle molecular epoxy resin MMW 700-1200	≥5 - ≤10	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1
respirable quartz	≥5 - ≤10	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
n-butyl acetate	≥5 - ≤10	FLAMMABLE LIQUIDS - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
ethylester 3-ethoxy propanoicacid	≥5 - ≤10	FLAMMABLE LIQUIDS - Category 3
3-methylpentane-1,5-diol	≥1 - ≤3	EYE IRRITATION - Category 2B
xylene	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 3
		ACUTE TOXICITY (dermal) - Category 4
		ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2
ethylbenzene	<1	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 CARCINOGENICITY - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
4-morpholinecarbaldehyde	≤0.3	ASPIRATION HAZARD - Category 1 SKIN SENSITIZATION - Category 1

SARA 313 :

Supplier notification :

Form R - Reporting requirements :

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Product/ingredient name CAS number Concentration trizinc bis(orthophosphate) 7779-90-0 3 - 5 xylene ethylbenzene 1330-20-7 1 - 3 100-41-4 0 - 1 Product/ingredient name CAS number Concentration middle molecular epoxy resin MMW 700-1200 25068-38-6 5 - 10 trizinc bis(orthophosphate) 7779-90-0 3 - 5 xylene 1330-20-7 1 - 3 ethylbenzene 100-41-4 0 - 1



SECTION 15: Regulatory information

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 Substances: The following components are listed: BARIUM SULFATE; TALC;
	SOAPSTONE; METHYL (N-AMYL) KETONE; TITANIUM DIOXIDE; TIN DIOXIDE DUST; SILICA, CRYSTALLINE, QUARTZ; QUARTZ; SILICA CRYSTALLENE QUARTZ; BUTYL ACETATE; N-BUTYL ACETATE; XYLENE; DIMETHYLBENZENE; ROUGE DUST; IRON OXIDE DUST; IRON OXIDE FUME Massachusetts Spill : None of the components are listed. Michigan Critical Material : None of the components are listed. Minnesota Hazardous Substances : None of the components are listed. New Jersey Spill : None of the components are listed.
	New Jersey Toxic Catastrophe Prevention Act: None of the components are listed. New Jersey Hazardous Substances: The following components are listed: BARIUM SULFATE; SULFURIC ACID, BARIUM SALT (1:1); TALC (CONTAINING ASBESTOS FIBERS); METHYL n-AMYL KETONE; METHYL PENTYL KETONE; 2-HEPTANONE; AMYLMETHYLKETONE; TITANIUM DIOXIDE; TITANIUM OXIDE (TiO2); SILICA, QUARTZ; QUARTZ (SiO2); SILICA, CRYSTALLINE- QUARTZ; SILICA, CRYSTALLINE; n-BUTYL ACETATE; ACETIC ACID, BUTYL ESTER; ZINC compounds; XYLENES; BENZENE, DIMETHYL-; IRON OXIDE; ROUGE; FERRIC OXIDE; ETHYL BENZENE; BENZENE, ETHYL-
	New York Hazardous Substances: The following components are listed: Butyl acetate; Xylene mixed New York Toxic Chemical Release Reporting: None of the components are listed. Pennsylvania RTK Hazardous Substances: The following components are listed: BARIUM SULFATE; TALC; SOAPSTONE DUST; 2-HEPTANONE; TITANIUM OXIDE; QUARTZ DUST; QUARTZ; ACETIC ACID, BUTYL ESTER; ZINC COMPOUNDS; BENZENE, DIMETHYL-; IRON OXIDE Rhode Island Hazardous Substances: None of the components are listed.
California Prop. 65 PFF :	WARNING : This product can expose you to chemicals including Epichlorohydrin and Lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Talc containing asbestiform fibers, Titanium dioxide, Silica, crystalline, Ethylbenzene, Silica, crystalline, Lead and lead compounds, Formaldehyde and Ethyl acrylate, which are known to the State of California to cause cancer, and Toluene and Bisphenol A, which are 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
Talc (non-asbestiform)	Yes.	No.		
titanium dioxide	Yes.	No.		
respirable quartz	Yes.	No.		
ethylbenzene	Yes.	No.	Yes.	
toluene	No.	Yes.		Yes.
cristobalite, non-respirable	Yes.	No.		
lead compounds	Yes.	No.		
4,4'-isopropylidenediphenol	No.	Yes.		Yes.
1-chloro-2,3-epoxypropane	Yes.	Yes.	Yes.	
lead powder (particle diameter < 1mm)	Yes.	Yes.	Yes.	Yes.
formaldehyde	Yes.	No.	Yes.	
ethyl acrylate	Yes.	No.		

SECTION 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 12 July 2021
GHS Classification	

Procedure used to derive the classification.



SECTION 16: Other information

Classification	Justification	
FLAMMABLE LIQUIDS - Category 3		On basis of test data
SKIN IRRITATION - Category 2		Calculation method
EYE IRRITATION - Category 2A		Calculation method
SKIN SENSITIZATION - Category 1		Calculation method
CARCINOGENICITY - Category 1A		Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1		Calculation method
Hazardous Material Information System (U.S.A.) National Fire Prot		ion Association (U.S.A.)
Health* 3Fire hazard3Physical hazards0Personal protectionX	Health 2	Flammability 0 Instability Special
Personal Protective Equipment (PPE) shown in this section is a suggestion. Since conditi- user is responsible to evaluate worker exposure conditions at the site of application and d		
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 Maritime Dangerous Goods IATA = International Air Transport Association SARA = Superfund Amendments Reauthorization Act EPCRA = Emergency Planning and Community Right to Know Act	

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