2870 CRESTWOOD BLVD. STE B
IRONDALE, AL 35210
205-857-0040

SECTION 1. IDENTIFICATION

PRODUCT NAME	DEFENDER PR58 - PART A
MANUFACTURER'S NAME	UMI COATINGS
ADDRESS	2870 CRESTWOOD BLVD, STE B IRONDALE, AL 35210
EMERGENCY PHONE	CHEMTREC: 800-424-9300
INFORMATION PHONE NUMBER	(205) 857-0040
FAX	N/A
PRODUCT USE	INDUSTRIAL & COMMERCIAL APPLICATIONS

SECTION 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS):

Environmental, Hazards to the aquatic environment - Acute, 2
Heath, Respiratory or skin sensitization, 1
Skin Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 2A
Environmental, Hazards to the aquatic environment - Chronic, 2

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

GHS Signal Word: **WARNING**

GHS HAZARD STATEMENTS:

H401 - Toxic to aquatic life.
H317 - May cause an allergic skin reaction.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

GHS PRECAUTIONARY STATEMENTS:

P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS

Route of Entry: Eyes; Ingestion; Inhalation; Skin

Target Organs: Respiratory system; Skin; Eyes

Inhalation: Heating, spraying, foaming, or otherwise mechanically dispersing (drumming, venting or pumping) operations of this blend may generate more vapor or aerosol concentrations of its components. May cause sneezing and slight irritation of nose, throat and lungs.

Skin Contact: Prolonged contact may cause skin irritation or dermatitis in some individuals.

Eye Contact: May cause watering of the eyes and inflammation of conjunctiva.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS	CHEMICAL NAME	% BY WEIGHT
25068-38-6	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane	1-100%
28064-14-4	Phenol, polymer with formaldehyde, glycidyl ether	1-100%
0	Proprietary	1-100%

SECTION 4. FIRST AID MEASURES

Inhalation: If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
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.
Eye Contact: Flush eyes with plenty of water for at least 15 minutes. Use fingers to assure that the eyelids are separated and that the eye is being irrigated. Consult a physician.
Ingestion: Get prompt, qualified medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Flammability: OSHA - none; DOT - none
Flash Point: 250°F
Flash Point Method: COC
Burning Rate: N/A
Autoignition Temp: No data available
LEL: N/A
UEL: N/A

Use dry chemical, foam, carbon dioxide, halogenated agents or water. Use cold water spray to cool fire-exposed containers to minimize risk of rupture. A solid stream of water directed into the hot burning liquid could cause frothing. If possible, contain fire run-off water. Wear positive-pressure self-contained breathing apparatus with full face-piece and full protective clothing should be worn by fire-fighters. Combustion may produce carbon dioxide, carbon monoxide and nitrogen oxides.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill: Remove all sources of flames, heating elements, gas engines, etc. Emergency clean-up personnel should wear chemical goggles, rubber or plastic gloves and clothing as required to protect against contact. Prevent spreading and contamination of surface waters and drinking supplies. Notify local health officials and other appropriate agencies if such contamination should occur.

Clean up: With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material such as clay or vermiculite and transfer to steel waste containers. Ventilate area to remove the remaining vapors.

SECTION 7. HANDLING AND STORAGE

HANDLING PRECAUTIONS

Avoid skin and eye contact. Use personal protective equipment when transferring material to or from drums, totes or other containers. If contamination with isocyanates is suspected, do not reseal containers. 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 of Mixed Products Containing Isocyanates: Inspect the application area for the potential to expose other persons or for over-spray to drift onto buildings, vehicles or other property. When spraying building exteriors, persons entering or exiting the building as well as those inside 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.

STORAGE REQUIREMENTS:

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

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.

WORK AREA EQUIPMENT:

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

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. Full contact Material: Nitrile rubber, Minimum layer thickness: 0.11 mm. Break through time: 480 min. Material tested: Dermatril (KCL 740 /Aldrich Z677272, Size M).

Splash protection: Material: Nitrile rubber . Minimum layer thickness: 0.11 mm. Break through time: 480 min. Material tested: Dermatril (KCL 740 / Aldrich Z677272, Size M). Data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, 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: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Non-pigmented liquid
PHYSICAL STATE:	Liquid
ODOR THRESHOLD:	No data available
SPEC GRAV./DENSITY:	N/A
VISCOSITY:	No data available
BOILING POINT:	No data available
FLAMMABILITY:	None
PARTITION COEFFICIENT:	No data available
VAPOR PRESSURE:	No data available
PH:	No data available
EVAP. RATE:	<1
DECOMP TEMP:	No data available
ODOR:	Mild
MOLECULAR FORMULA:	N/A
SOLUBILITY:	Not soluble in water
PERCENT VOLATILE:	0%
FREEZING/MELTING PT.:	No data available
FLASH POINT:	250°F

VAPOR DENSITY:	>1
AUTO-IGNITION TEMP:	No data available
UFL/LFL:	No data available

SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:

Product is stable under normal conditions. Avoid high temperatures, sparks and flame and extended temperatures over 85°F (25°C).

CONDITIONS TO AVOID:

Incompatible with oxidizing materials, strong alkalies, amines and acids. High temperatures, sparks, flame and extended exposure over 85°F (25°C).

MATERIALS TO AVOID:

Oxidizing materials; isocyanates; acids.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (25068-38-6) [1-100%]: no data available
Phenol, polymer with formaldehyde, glycidyl ether (28064-14-4) [1-100%]: no data available

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY:

Oral LD50 LD50 Oral - rat - 13,600 mg/kg
Remarks: Behavioral: Somnolence (general depressed activity). Lungs, Thorax, or Respiration: Dyspnea. Nutritional and Gross Metabolic: Weight loss or decreased weight gain.
Inhalation LC50 no data available.
Dermal LD50

IOTHER INFORMATION ON ACUTE TOXICITY

Skin corrosion/irritation: no data available
Serious eye damage/eye irritation: no data available
Respiratory or skin sensitization: May cause sensitization by skin contact.
Germ cell mutagenicity: no data available
Genotoxicity in vitro - Ames test - positive

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

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects: Inhalation - May be harmful if inhaled. Causes respiratory tract irritation. Ingestion - May be harmful if swallowed. Skin - May be harmful if absorbed through skin. Causes skin irritation. Eyes - Causes eye irritation.

Synergistic effects: no data available

Additional Information: RTECS: KC2100000

PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER (28064-14-4)

ACUTE TOXICITY

Oral LD50 no data available
Inhalation LC50
Dermal LD50

Other information on acute toxicity:

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

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

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects: Inhalation - May be harmful if inhaled. May cause respiratory tract irritation. Ingestion - May be harmful if swallowed. Skin - May be harmful if absorbed through skin. May cause skin irritation. Eyes - May cause eye irritation.

Synergistic effects: no data available

Additional Information: RTECS: Not available

SECTION 12. ECOLOGICAL INFORMATION

PHENOL, 4,4'-(1-METHYLETHYLIDENE)BIS-, POLYMER WITH (CHLOROMETHYL)OXIRANE (25068-38-6)

INFORMATION ON ECOLOGICAL EFFECTS

Toxicity: no data available

Persistence and degradability: Biodegradability Result: According to the results of tests of biodegradability this product is not readily biodegradable. Remarks: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects: no data available

PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER (28064-14-4)

INFORMATION ON ECOLOGICAL EFFECTS

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

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.

SECTION 14. Transport Information

Non DOT/RCRA regulated

SECTION 15. REGULATORY INFORMATION

Component (CAS#) [%] - CODES

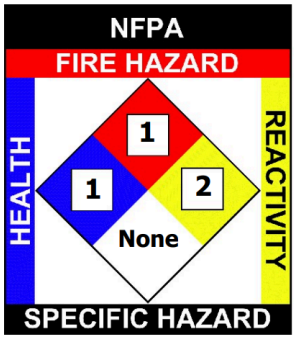
*Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane (25068386), TSCA

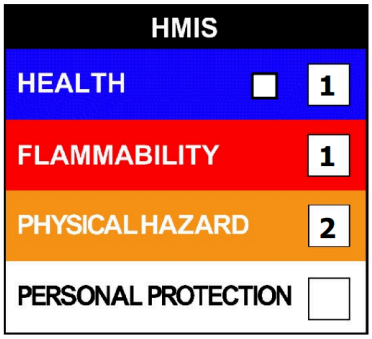
*Phenol, polymer with formaldehyde, glycidyl ether (28064144), TSCA

REGULATORY KEY DESCRIPTIONS
TSCA = Toxic Substances Control Act

SECTION 16. Other Information

NFPA: Health = 1, Fire = 1, Reactivity = 2 Specific Hazard = None
HMIS III: Health = 1, Fire = 1, Physical Hazard = 2





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2870 CRESTWOOD BLVD. STE B
IRONDALE, AL 35210
205-857-0040

SECTION 1. IDENTIFICATION

PRODUCT NAME	DEFENDER PR58 - PART B
MANUFACTURER'S NAME	UMI COATINGS
ADDRESS	2870 CRESTWOOD BLVD, STE B IRONDALE, AL 35210
EMERGENCY PHONE	CHEMTREC: 800-424-9300
INFORMATION PHONE NUMBER	(205) 857-0040
FAX	N/A
PRODUCT USE	INDUSTRIAL & COMMERCIAL APPLICATIONS

SECTION 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS):

Health, Serious Eye Damage/Eye Irritation, 1
Health, Respiratory or skin sensitization, 1
Respiratory Environmental, Hazards to the aquatic environment - Chronic, 2
Health, Skin corrosion/irritation, 2
Health, Acute toxicity, 4
Dermal Health, Acute toxicity, 4
Oral Environmental, Hazards to the aquatic environment - Acute, 2

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

GHS Signal Word: **WARNING**

GHS HAZARD STATEMENTS:

H318 - Causes serious eye damage.
H334 - May cause allergy or asthma symptoms of breathing difficulties if inhaled.
H411 - Toxic to aquatic life with long lasting effects.
H315 - Causes skin irritation.
H312 - Harmful in contact with skin.
H302 - Harmful if swallowed.
H401 - Toxic to aquatic life.

GHS PRECAUTIONARY STATEMENTS:

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
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.

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS

Route of Entry: Eyes; Ingestion; Inhalation; Skin

Target Organs: Respiratory system; Skin; Eyes; Lungs

Inhalation: Heating, spraying, foaming, or otherwise mechanically dispersing (drumming, venting or pumping) operations of this blend may generate more vapor or aerosol concentrations of its components. Amines can produce severe respiratory tract irritation. This will be experienced as a discomfort in the nose, throat and chest, with nasal discharge, cough, headache and difficulty with breathing. Prolonged or repeated contact may result in lung damage.

Skin Contact: Prolonged contact may cause lead to burning associated with severe reddening, swelling and possible tissue destruction.

Eye Contact: Will cause irritation on contact. Symptoms from amine exposure include watering or discomfort of the eyes with marked excess redness and swelling. Severe exposure could produce chemical burns of the cornea.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS	CHEMICAL NAME	% BY WEIGHT
112-57-2	Tetraethylenepentamine	1-10%
25154-52-3	Nonylphenol	1-10%
90-72-2	Phenol, 2,4,6-tris[(dimethylamino)methyl]-	1-5%
0	Proprietary	30-95%

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.

Eye Contact: Flush eyes with plenty of water for at least 15 minutes. Use fingers to assure that the eyelids are separated and that the eye is being irrigated. Consult a physician.

Ingestion: Seek immediate medical attention. Immediately give two glasses of water. Do not induce vomiting unless prompted to do so by a medical professional. Never give anything by mouth to an unconscious person.

SECTION 5. FIRE FIGHTING MEASURES

Flammability: OSHA - none; DOT - none
Flash Point: >200°F
Flash Point Method: COC
Burning Rate: N/A
Autoignition Temp: No data available
LEL: N/A
UEL: N/A

Use dry chemical, foam, carbon dioxide, halogenated agents or water. Use cold water spray to cool fire-exposed containers to minimize risk of rupture. A solid stream of water directed into the hot burning liquid could cause frothing. If possible, contain fire run-off water. Positive-pressure self-contained breathing apparatus with full face-piece and full protective clothing should be worn by fire-fighters. Combustion may produce carbon dioxide, carbon monoxide and nitrogen oxides.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill: Isolate and confine spill area. Remove all sources of ignition sources like flames, heating elements, gas engines, etc. Use non-sparking tools. Emergency clean-up personnel should select the specific respirator based on contamination levels found. Use air purifying respirator equipped with full-face organic vapor cartridge if vapors are detected, or are irritating. In areas of high concentrations, fresh air-line respirators or self-contained breathing apparatus and protective clothing should be used. Prevent spreading and contamination of surface waters and drinking supplies. Notify local health officials and other appropriate agencies if such contamination should occur.

Clean up: With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material such as clay or vermiculite and transfer to steel waste containers. Ventilate area to remove the remaining vapors.

SECTION 7. HANDLING AND STORAGE

HANDLING PRECAUTIONS

Avoid skin and eye contact. Use personal protective equipment when transferring material to or from drums, totes or other containers. If contamination with isocyanates is suspected, do not reseal containers. Do not smoke or use naked lights, open flames, space heaters, or other ignition sources near pouring, frothing or spraying operations.

STORAGE REQUIREMENTS

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

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.

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.

Eye protection: Tightly fitting safety goggles. Face shield (8-inch minimum). 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: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Tetraethylenepentamine (112-57-2) : no data available
Phenol, 2,4,6-tris[(dimethylamino)methyl]- (90-72-2) : no data available

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Non-pigmented liquid
PHYSICAL STATE:	Liquid
ODOR THRESHOLD:	No data available
SPEC GRAV./DENSITY:	N/A
VISCOSITY:	No data available
BOILING POINT:	>385°F
FLAMMABILITY:	None
PARTITION COEFFICIENT:	No data available
VAPOR PRESSURE:	No data available
PH:	No data available
EVAP. RATE:	<1
DECOMP TEMP:	No data available
ODOR:	Amine-Like
MOLECULAR FORMULA:	N/A
SOLUBILITY:	Not soluble in water
PERCENT VOLATILE:	<2%
FREEZING/MELTING PT.:	No data available
FLASH POINT:	>200°F
VAPOR DENSITY:	>1
AUTO-IGNITION TEMP:	No data available
UFL/LFL:	No data available

SECTION 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:

Product is stable under normal conditions.

MATERIALS TO AVOID:

Oxidizing materials; aldehydes and nitrogen oxides.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Tetraethylenepentamine (112-57-2)

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY:

Oral LD50 LD50 Oral - rat - 3,990 mg/kg
Inhalation LC50: no data available
Dermal LD50

Other information on acute toxicity:

Skin corrosion/irritation: rabbit

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: May cause sensitization by inhalation.

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

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects: Inhalation - May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion - May be harmful if swallowed. Skin - Toxic if absorbed through skin. Causes skin burns. Eyes - Causes eye burns.

Signs and Symptoms of Exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonia, pulmonary edema, burning sensation, cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

Synergistic effects: no data available

Additional Information: RTECS: KH8585000

PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL]- (90-72-2)

INFORMATION ON TOXICOLOGICAL EFFECTS -

ACUTE TOXICITY:

Oral LD50 LD50 Oral - rat - 2,169 mg/kg Remarks: Lungs, Thorax, or Respiration: Dyspnea.
Inhalation LC50: no data available
Dermal LD50

Other information on acute toxicity:

Skin corrosion/irritation: rabbit - Severe skin irritation - 24 h - Draize Test

Serious eye damage/eye irritation: rabbit - Severe eye irritation - 24 h - Draize Test

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

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects: Inhalation - May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion - Harmful if swallowed. Skin - Harmful if absorbed through skin. Causes skin burns. Eyes - Causes eye burns.

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

Synergistic effects: no data available

Additional Information: RTECS: SN3500000

SECTION 12. ECOLOGICAL INFORMATION

TETRAETHYLENEPENTAMINE (112-57-2)

INFORMATION ON ECOLOGICAL EFFECTS

Toxicity to fish LC50 - Poecilia reticulata (guppy) - 420 mg/l - 96.0 h.
Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 24 mg/l - 48 h. and other aquatic invertebrates
Toxicity to algae IC50 - Pseudokirchneriella subcapitata (green algae) - 2 mg/l - 72 h.

Persistence and degradability: Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

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

PHENOL, 2,4,6-TRIS[(DIMETHYLAMINO)METHYL]- (90-72-2)

INFORMATION ON ECOLOGICAL EFFECTS

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE 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 SDS 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.

SECTION 14. Transport Information

Non DOT/RCRA regulated

SECTION 15. REGULATORY INFORMATION

*Tetraethylenepentamine (112572)HAP, MASS, PA, TSCA

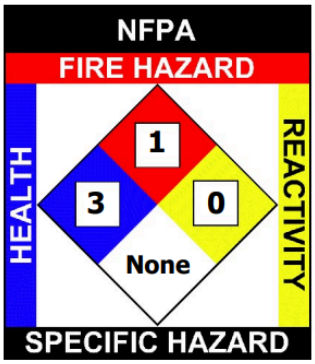
*Nonylphenol (25154523),HAP, MASS, PA, TSCA

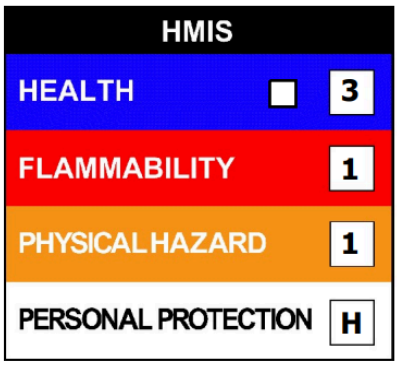
*Phenol, 2,4,6-tris[(dimethylamino)methyl]- (90722), TSCA

REGULATORY KEY DESCRIPTIONS
HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
PA = PA Right-To-Know List of Hazardous Substances
TSCA = Toxic Substances Control Act

SECTION 16. Other Information

NFPA: Health = Health = 3, Fire = 1, Reactivity = 0, Specific Hazard = None
HMIS III: Health = 3, Fire = 1, Physical Hazard = 1
HMIS PPE: H - Splash Goggles, Gloves, Apron, Vapor Respirator





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