

MATERIAL SAFETY DATA SHEET



**SECTION 1 - PRODUCT AND COMPANY INFORMATION**

Pretreatment and Specialty Products  
23000 St. Clair Avenue  
Euclid, OH 44117

**EMERGENCY PHONE NUMBERS (412) 434-4515 (U.S.)**  
(24 hours/day):

(514) 645-1320 (Canada)  
01-800-00-21-400 (Mexico)  
0532-3889090 (China)

**TECHNICAL INFORMATION:** 1-800-627-6015 (PPG PRETREATMENT & SPECIALTY PRODUCTS) 8:00 a.m. - 5:00 p.m. EST

**PRODUCT SAFETY/MSDS INFORMATION:** (412) 492-5555 7:00 a.m. - 4:30 p.m. EST

**Product ID:** RCTM (0820)  
**PRODUCT NAME:** RECOOL TM  
**SYNONYMS:** None  
**ISSUE DATE:** 03/04/2005  
**EDITION NO.:** 1  
**CHEMICAL FAMILY:** MIXTURE

**EMERGENCY OVERVIEW:**

CAUSES IRREVERSIBLE EYE DAMAGE. MAY CAUSE SKIN BURNS. MAY BE ABSORBED THROUGH THE SKIN. PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION. VAPOR AND/OR SPRAY MIST HARMFUL IF INHALED. MAY IRRITATE LUNGS. VAPOR GENERATED AT ELEVATED TEMPERATURES IRRITATES EYES, NOSE AND THROAT. HARMFUL IF SWALLOWED. This product is not expected to present any unusual hazards under fire or spill conditions. Read entire MSDS before use.

**SECTION 2 - COMPOSITION INFORMATION**

The following ingredient(s) marked with an "x" are considered hazardous under applicable U.S. OSHA and/or Canadian WHMIS regulations. If no ingredients are listed, then there are no U.S. OSHA and/or Canadian WHMIS hazardous ingredients in this product.

Material/ CAS Number	Percent	Hazardous
TRIETHANOL AMINE 102-71-6	7 - 13	X
ALKOXYLATED BUTYL ETHER 9038-95-3	5 - 10	X
POLYESTER Proprietary	3 - 7	X
HEXAHYDRO-1,3,5-TRIS(2-HYDROXYETHYL)-S-T 4719-04-4	1 - 5	X
ETHANOLAMINE 141-43-5	1 - 5	X

**SECTION 3 - HAZARDS IDENTIFICATION**

**ACUTE OVEREXPOSURE EFFECTS**

**EYE CONTACT:**

This product contains a material which causes irreversible eye damage. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact.

**SKIN CONTACT:**

May cause skin burns. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

**SKIN ABSORPTION:**

May be absorbed through the skin. Prolonged or repeated contact may cause an allergic skin reaction.

**INHALATION:**

Vapor and/or spray mist harmful if inhaled. May irritate lungs. Vapor generated at elevated temperatures irritates eyes, nose and throat.

**INGESTION:**

Harmful if swallowed.

**SIGNS & SYMPTOMS OF OVEREXPOSURE:**

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Eye watering, headaches, nausea, dizziness and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Not applicable.

**CHRONIC OVEREXPOSURE EFFECTS**

Avoid long-term and repeated contact. Repeated exposure to vapors above recommended exposure limits (see Section 8) may cause irritation of the respiratory system and permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. This product either contains formaldehyde or is capable of releasing formaldehyde above 0.5 ppm under certain conditions. If this product contains free formaldehyde, formaldehyde will be listed as an ingredient in Section 2 and 11 of this MSDS; if formaldehyde is not specifically listed, this product contains ingredients capable of releasing formaldehyde under certain conditions. Formaldehyde is a known cancer hazard, a skin sensitizer and a respiratory sensitizer. The effects of long-term, low level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. See Section 11, of this MSDS for a detailed list of chronic health effects information available on individual ingredients in this product.

**SECTION 4 - FIRST AID MEASURES**

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available.

**EYE CONTACT:**

Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.

**SKIN CONTACT:**

Run a gentle stream of water over the affected area for 15 minutes. A mild soap may be used if available. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.

**INHALATION:**

Remove from area to fresh air. If symptomatic, contact a poison control center, emergency room or physician for treatment information.

**INGESTION:**

Gently wipe or rinse the inside of the mouth with water. Sips of water may be given if person is fully conscious. Never give anything by mouth to an unconscious or convulsing person. Do Not induce vomiting. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.

**SECTION 5 - FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES**

**FLASHPOINT:** Not Applicable.

**FLASHPOINT TEST METHOD:**

Pensky-Martens Closed Cup

**UEL:** Not Available.

LEL: Not Available.

**AUTOIGNITION TEMPERATURE:**

Not Available.

**EXTINGUISHING MEDIA:**

Use extinguishers appropriate for surrounding fire.

**PROTECTION OF FIREFIGHTERS:**

Firefighters should wear self-contained breathing apparatus and full protective clothing.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Closed containers may explode or burst (due to the build-up of steam pressure) when exposed to extreme heat. May produce hazardous decomposition products when exposed to extreme heat. Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

**SECTION 6 - ACCIDENTAL RELEASE MEASURE**

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

**SECTION 7 - HANDLING AND STORAGE**

**PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:**

Keep container closed when not in use. Store in a cool, dry, well-ventilated place.

**STORAGE:**

Store in cool dry place. For better shelf life, do not store above 80 degrees Fahrenheit (26 degrees C.).

**SECTION 8 - EXPOSURE CONTROLS & PERSONAL PROTECTION**

**ENGINEERING CONTROLS:**

Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients in Section 2 below the lowest suggested exposure limit, and LEL below stated limit, as appropriate.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES:**

Wear chemical-type splash goggles and full face shield when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

**SKIN/GLOVES:**

Wear protective clothing sufficient to cover exposed skin surfaces. For applications where skin contact is likely and impermeable clothing is necessary, select clothing constructed of: impermeable material. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment. The decision whether to clean or discard contaminated clothing should be based on the chemicals contaminating them. Some chemicals can cause skin irritation, sensitization or other health effects if the cleaning process does not remove all traces of them. Consult a safety professional to determine whether clothing contaminated with this product can be safely cleaned and reused.

**RESPIRATOR:**

Where vapors are present, an appropriate NIOSH-approved air purifying respirator with organic vapor cartridges or positive-pressure, air-supplied respirator is required. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used. Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients in Section 2 below the lowest suggested exposure limit, and LEL below stated limit, as appropriate.

**GENERAL HYGIENE - ESTABLISHED EXPOSURE LIMITS**

If Threshold Limit Values (TLVs) have been established by ACGIH, OSHA, Ontario or PPG, they will be listed below. These limits are intended for use in the practice of industrial hygiene as guidelines or recommendations in the control of potential workplace health hazards. These limits are not a relative index of toxicity and should not be used by anyone without industrial hygiene training.

Material/ CAS Number	Percent	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
TRIETHANOL AMINE 102-71-6	7 - 13	5 mg/m <sup>3</sup>	Not established	Not established	Not established
ETHANOLAMINE 141-43-5	1 - 5	3 ppm	6 ppm	3 ppm	6 ppm

Key: OSHA=Occupational Safety and Health Administration;  
PEL=Permissible Exposure Limit; Ceiling=PEL Ceiling Limit; STEL=PEL  
Short-Term Exposure Limit; Skin=OSHA Skin Designation.

Material/ CAS Number	Percent	Ontario TWA	Ontario STEL	PPG IPEL	PPG STEL
TRIETHANOL AMINE 102-71-6	7 - 13	0.5 PPM	Not established	Not established	Not established
ETHANOLAMINE 141-43-5	1 - 5	3 ppm	6 ppm	Not established	Not established

Key: ACGIH=American Conference of Governmental Industrial  
Hygienists; OSHA=Occupational Safety and Health Administration;  
TLV=Threshold Limit Value; TWA=Time Weighted Average;  
PEL=Permissible Exposure Limit; IPEL=Internal Permissible Exposure  
Limit; Ceiling=TLV or PEL Ceiling Limit; STEL=TLV or PEL Short-Term  
Exposure Limit; Skin= Skin Absorption Designation. [C- Ceiling Limit; S-  
Potential Skin Absorption; R-Respirable Dust]  
Additional Information Not applicable.

**SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES  
(FORMULA VALUES, NOT SALES SPECIFICATIONS)**

<b>SPECIFIC GRAVITY:</b>	1.058
<b>PHYSICAL STATE:</b>	Liquid
<b>Percent Solids:</b>	37.09
<b>Percent Volatile by Volume:</b>	64.910
<b>pH:</b>	9.6
<b>ODOR THRESHOLD:</b>	Not available.
<b>Vapour Pressure (mm Hg):</b>	17.5 mmHg
<b>ODOR/APPEARANCE:</b>	Liquid with an odor characteristic of the chemical family and any solvents listed in Section 2.
<b>VAPOR DENSITY:</b>	HEAVIER THAN AIR
<b>Evaporation Rate:</b>	34
<b>BOILING POINT OR RANGE:</b>	199- 636Degrees F
<b>Freezing Point or Range:</b>	Not Applicable.
<b>Melting Point or Range(°C):</b>	Not Applicable.
<b>Octanol/Water Partition Coefficient:</b>	Not Applicable.
<b>WEIGHT PER GALLON:</b>	8.82 (U.S.) / 10.5 (IMPERIAL)

**SECTION 10 - STABILITY AND REACTIVITY**

**STABILITY:**

This product is normally stable and will not undergo hazardous reactions.

**CONDITIONS TO AVOID:**

None Known.

**INCOMPATIBLE MATERIALS:**

None Known.

**HAZARDOUS POLYMERIZATION:**

None Known.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

- Carbon monoxide - Carbon dioxide - Oxides of nitrogen - Hydrocarbons

Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled by an appropriately licensed reconditioner/salvager or disposed of through a permitted waste management facility. Additional disposal information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

**ACUTE TOXICITY**

Material/ CAS Number	Percent	ORAL LD50 (g/kg)	DERMAL LD50 (g/kg)	INHALATION LC50 (mg/l)
TRIETHANOL AMINE 102-71-6	7 - 13	8.00 g/kg	Not Available	Not Available
ALKOXYLATED BUTYL ETHER 9038-95-3	5 - 10	5.37 g/kg	20.00 g/kg	.15 mg/L, 4 h
HEXAHYDRO- 1,3,5-TRIS(2- HYDROXYETHYL)- S-T 4719-04-4	1 - 5	.54 g/kg	2.00 g/kg	Not Available
ETHANOLAMINE 141-43-5	1 - 5	3.32 g/kg	1.00 g/kg	Not Available

**CHRONIC TOXICITY**

**Target Organs:**

- Metabolizes to carcinogen - Brain - Central nervous system - Lung

**Mutagenicity:**

This has not been tested for this product.

**Reproductive:**

This has not been tested for this product.

**SUPPLEMENTAL HEALTH INFORMATION:**

Material/ CAS Number	Percent	Ingredient Specific Animal Data:
TRIETHANOL AMINE 102-71-6	7 - 13	This product contains triethanolamine which can be converted to a carcinogenic nitrosamine in the body. Nitrosamines may produce tumors in laboratory animals by oral administration or by injection under the skin. Triethanolamine has caused adverse kidney and liver effects when ingested by laboratory animals.
ALKOXYLA TED BUTYL ETHER 9038-95-3	5 - 10	This product contains an alkoxylated butyl ether which has been shown to produce delayed lung damage and death in laboratory animals that were exposed to high aerosol concentrations.

**SECTION 12 - ECOLOGICAL INFORMATION**

**POTENTIAL ENVIRONMENTAL EFFECTS**

Ecotoxicity: No Information Available.

**ENVIRONMENTAL FATE**

Mobility: No Information Available.

Biodegradation: No Information Available.

Bioaccumulation: No Information Available.

**PHYSICAL/CHEMICAL**

Hydrolysis: No Information Available.

Photolysis: No Information Available.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Provide maximum ventilation, only personnel equipped with proper respiratory and skin and eye protection should be permitted in the area. Take up spilled material with sawdust, vermiculite, or other absorbent material and place in containers for disposal.

**SECTION 14 - TRANSPORTATION INFORMATION**

Proper Shipping Name: Chemicals, NOI  
NOS Technical Name: None  
Hazard Class: None  
Subsidiary Class(es): None  
UN Number: None  
Packing Group: None

USA - RQ Hazardous Substances: None  
USA-RQ Hazardous Substance: None  
Threshold Ship Weight:  
Marine Pollutant Name: None

**SECTION 15 - REGULATORY INFORMATION**

**INVENTORY STATUS**

U.S. TSCA: This product and/or all of its components are listed on the U.S. TSCA Inventory or is otherwise exempt from TSCA inventory reporting requirements.

**FEDERAL REGULATIONS**

**US Regulations**

Material/ CAS Number	Percent	CERCLA HS - RQ (LBS)	SARA EHS- TPQ (LBS)	SARA 313
TRIETHANOL AMINE 102-71-6	7 - 13	Not Listed	Not Listed	Not Listed
ALKOXYLATED BUTYL ETHER 9038-95-3	5 - 10	Not Listed	Not Listed	Not Listed
POLYESTER Proprietary	3 - 7	Not Listed	Not Listed	Not Listed
HEXAHYDRO- 1,3,5-TRIS(2- HYDROXYETHYL)- S-T 4719-04-4	1 - 5	Not Listed	Not Listed	Not Listed
ETHANOLAMINE 141-43-5	1 - 5	Not Listed	Not Listed	Not Listed

**SARA 311/312**

Health (acute): Yes

Health (chronic): Yes

Fire (flammable): Yes

Pressure: No

Reactivity: No

WHMIS HAZARD CLASS: - Class D, Division 2, Subdivision A - Class D, Division 2, Subdivision B - Class D, Division 1, Subdivision B

**STATE/PROVINCIAL REGULATIONS**

**Additional Information**

Key: IARC- International Agency on the Research of Cancer; ACGIH- American Conference of Governmental Industrial Hygienists; NTP- National Toxicology Program \*Denotes chemical as NTP Known Carcinogen; + Denotes NTP Possible Carcinogen; OSHA- Occupational Safety and Health Administration.

**SECTION 16 - OTHER INFORMATION**

**Hazard Rating Systems**

NFPA Rating: 3 20

HMIS Rating: 3\*20

Rating System: 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe,  
\*=Chronic Effects.

HMIS=Hazardous Materials Identification System; NFPA=National Fire  
Protection Association;

Safe handling of this product requires that all of the information on the  
MSDS be evaluated for specific work environments and conditions of use.

PREPARED BY: Product Safety Department  
REASON FOR REVISION: Date. Edition. ^  
Updated MSDS  
format.

This Material Safety Data Sheet has been prepared in accordance with  
Canada's Workplace Hazardous Materials Information System (WHMIS)  
and the OSHA Hazard Communication Standard (29 CFR 1910.1200),  
the supplier notification requirements of SARA Title III, Section 313 and  
other applicable right-to-know regulations.

Additional environmental information is contained on the Environmental  
Data Sheet for this product, which can be obtained from your PPG  
representative.

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040813, 000, 0820

\*\*\* END OF MSDS \*\*\*