



**GE Betz**

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Material Safety Data Sheet

Issue Date: 21-NOV-2000

**EMERGENCY TELEPHONE (Health/Accident): (800) 877-1940**

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## 1 PRODUCT IDENTIFICATION

PRODUCT NAME:

**PERMATREAT 1500**

PRODUCT APPLICATION AREA:

**LIQUID CONVERSION COATING**

## 2 COMPOSITION / INFORMATION ON INGREDIENTS

Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this MSDS for our assessment of the potential hazards of this formulation.

### HAZARDOUS INGREDIENTS:

CAS#	CHEMICAL NAME
1333-82-0	CHROMIC (VI) ACID (CRO3); CHROMIUM OXIDE Oxidizer; corrosive; highly toxic (by ingestion and skin absorption); potential sensitizer (skin); human carcinogen (IARC=1; NTP=known); potential liver and kidney toxin
24613-89-6	CHROMIUM CHROMATE Human carcinogen (IARC=1; NTP=known)
7631-86-9	SILICON DIOXIDE (AMORPHOUS SILICA) Nuisance particulate
112945-52-5	SILICON DIOXIDE,SYNTHETIC,FUMED (AMORPHOUS SILICA) Nuisance particulate

Although evidence is inconclusive, EPA and OSHA consider all CrVI compounds potential human carcinogens. Increased risk of lung cancer has been observed in chrome producing, plating, alloy and pigment industries.

Results of animal tests indicate some CrVI compounds may be carcinogenic to man by inhalation. It is therefore prudent to treat all CrVI compounds as suspect carcinogens and to minimize worker exposure to dusts/mists.

### 3 HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW

##### DANGER

May cause moderate irritation to the skin. Skin sensitizer.  
Corrosive to the eyes. Dusts or mists can cause ulceration and perforation of the nasal septum, as well as irritation and damage to the respiratory tract. Symptoms may resemble asthma.

DOT hazard: Toxic  
Emergency Response Guide #151  
Odor: Slight Acid; Appearance: Dark Brown, Liquid

Fire fighters should wear positive pressure self-contained breathing apparatus(full face-piece type). Proper fire-extinguishing media:  
Flood with water. Use of CO2 or foam may not be effective.

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#### POTENTIAL HEALTH EFFECTS

##### ACUTE SKIN EFFECTS:

Primary route of exposure; Toxic; May cause moderate irritation to the skin. Skin sensitizer.

##### ACUTE EYE EFFECTS:

Corrosive to the eyes.

##### ACUTE RESPIRATORY EFFECTS:

Highly Toxic;Dusts or mists can cause ulceration and perforation of the nasal septum, as well as irritation and damage to the respiratory tract. Symptoms may resemble asthma.

##### INGESTION EFFECTS:

Toxic;  
May cause gastrointestinal irritation. Very large doses may cause diarrhea, depression, colic and death. May also cause severe allergic reactions in sensitive individuals.

##### TARGET ORGANS:

Prolonged or repeated exposures may cause skin sensitization and/or toxicity to the liver and kidney. May increase risk of cancer.

##### MEDICAL CONDITIONS AGGRAVATED:

Not known.

##### SYMPTOMS OF EXPOSURE:

Inhalation of mists or aerosols may cause asthma-like symptoms.  
Skin contact may cause irritation, burns, or ulceration (chrome sores), possible skin sensitization, and/or dermatitis.

### 4 FIRST AID MEASURES

##### SKIN CONTACT:

Wash thoroughly with soap and water. Remove contaminated clothing.  
Thoroughly wash clothing before reuse. Get medical attention if irritation develops or persists.

##### EYE CONTACT:

URGENT! Immediately flush eyes with plenty of low-pressure water for at least 20 minutes while removing contact lenses. Hold eyelids apart. Get immediate medical attention.

**INHALATION:**

URGENT! Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get immediate medical attention.

**INGESTION:**

Do not feed anything by mouth to an unconscious or convulsive victim. Dilute contents of stomach. Induce vomiting by administering soap solution emetic, or other standard method if soap solution is not available. Immediately contact a physician.

**NOTES TO PHYSICIANS:**

No special instructions

## 5 FIRE FIGHTING MEASURES

**FIRE FIGHTING INSTRUCTIONS:**

Fire fighters should wear positive pressure self-contained breathing apparatus (full face-piece type).

**EXTINGUISHING MEDIA:**

Flood with water. Use of CO2 or foam may not be effective.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Thermal decomposition (destructive fires) yields elemental oxides.

**FLASH POINT:**

> 200F > 93C P-M(CC)

**MISCELLANEOUS:**

Toxic

UN3287;Emergency Response Guide #151

## 6 ACCIDENTAL RELEASE MEASURES

**PROTECTION AND SPILL CONTAINMENT:**

Ventilate area. Use specified protective equipment. Contain and absorb on absorbent material. Place in waste disposal container. Spill residue may be reduced with acid bisulfite solution.

**DISPOSAL INSTRUCTIONS:**

For disposal use a commercial disposal company or in-house use a chromate removal system in accordance with RCRA regulations. Incineration of chromates with chlorides or chlorine bearing organics may be hazardous. URGENT!

Water contaminated with this product may be sent to a sanitary sewer treatment facility, in accordance with any local agreement, a permitted waste treatment facility or discharged under a permit.

## 7 HANDLING & STORAGE

**HANDLING:**

Contains an oxidizer. Avoid all contact with reducing agents, oils, greases, organics and acids. Do not allow to dry. Corrosive to skin and/or eyes. Do not breathe mist or vapor.

**STORAGE:**

Keep containers closed when not in use. Protect from freezing. Preferably stored between 40-100F (5-40C).

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## EXPOSURE LIMITS

### CHEMICAL NAME

CHROMIC (VI) ACID (CrO<sub>3</sub>); CHROMIUM OXIDE

PEL (OSHA): 0.1 MG/M<sup>3</sup>-CEILING(AS Cr)

TLV (ACGIH): 0.05 MG/M<sup>3</sup>(AS Cr)

CHROMIUM CHROMATE

PEL (OSHA): 0.1 MG/M<sup>3</sup>-CEILING(AS Cr)

TLV (ACGIH): 0.05 MG/M<sup>3</sup>(AS Cr)

SILICON DIOXIDE (AMORPHOUS SILICA)

PEL (OSHA): 6 MG/M<sup>3</sup>(TOTAL DUST)

TLV (ACGIH): 10 MG/M<sup>3</sup>(TOTAL DUST)

SILICON DIOXIDE, SYNTHETIC, FUMED (AMORPHOUS SILICA)

PEL (OSHA): 6 MG/M<sup>3</sup>(TOTAL DUST)

TLV (ACGIH): 10 MG/M<sup>3</sup>(TOTAL DUST)

### ENGINEERING CONTROLS:

Adequate ventilation to maintain air contaminants below exposure limits.

### PERSONAL PROTECTIVE EQUIPMENT:

Use protective equipment in accordance with 29CFR 1910 Subpart I

#### RESPIRATORY PROTECTION:

A RESPIRATORY PROTECTION PROGRAM THAT MEETS OSHA'S 29 CFR 1910.134 AND ANSI Z88.2 REQUIREMENTS MUST BE FOLLOWED WHENEVER WORKPLACE CONDITIONS WARRANT A RESPIRATOR'S USE.

USE AIR PURIFYING RESPIRATORS WITHIN USE LIMITATIONS ASSOCIATED WITH THE EQUIPMENT OR ELSE USE SUPPLIED AIR-RESPIRATORS.

If air-purifying respirator use is appropriate, use a respirator with HEPA cartridges.

#### SKIN PROTECTION:

gauntlet-type neoprene gloves, chemical resistant apron--  
Wash off after each use. Replace as necessary.

#### EYE PROTECTION:

splash proof chemical goggles, face shield

## 9 PHYSICAL & CHEMICAL PROPERTIES

Specific Grav.(70F,21C)	1.097	Vapor Pressure (mmHG)	~ 18.6
Freeze Point (F)	32	Vapor Density (air=1)	< 1.00
Freeze Point (C)	0		
Viscosity(cps 70F,21C)	15	% Solubility (water)	100.0

Odor		Slight Acid
Appearance		Dark Brown
Physical State		Liquid
Flash Point	P-M(CC)	> 200F > 93C
pH As Is (approx.)		2.4
Evaporation Rate (Ether=1)		< 1.00

NA = not applicable      ND = not determined

## 10 STABILITY & REACTIVITY

**STABILITY:**

Stable under normal storage conditions.

**HAZARDOUS POLYMERIZATION:**

Will not occur.

**INCOMPATIBILITIES:**

May react with strong oxidizers.

**DECOMPOSITION PRODUCTS:**

Thermal decomposition (destructive fires) yields elemental oxides.

**INTERNAL PUMPOUT/CLEANOUT CATEGORIES:**

"B"

## 11 TOXICOLOGICAL INFORMATION

Oral LD50 RAT: ~400 mg/kg  
NOTE - Estimated value  
Dermal LD50 RABBIT: ~440 mg/kg  
NOTE - Estimated value  
Inhalation LC50 RAT: ~6.7 mg/L/hr  
NOTE - Estimated value

## 12 ECOLOGICAL INFORMATION

**AQUATIC TOXICOLOGY**

Daphnia magna 48 Hour Static Renewal Bioassay

LC50= 5.3; No Effect Level= 2.7 mg/L

Fathead Minnow 96 Hour Static Renewal Bioassay

LC50= 805; No Effect Level= 350 mg/L

**BIODEGRADATION**

No Data Available.

## 13 DISPOSAL CONSIDERATIONS

If this undiluted product is discarded as a waste, the US RCRA hazardous waste identification number is :  
D007=Chromium.

Please be advised; however, that state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Consult state and local regulations regarding the proper disposal of this material.

## 14 TRANSPORT INFORMATION

DOT HAZARD: Toxic  
UN / NA NUMBER: UN3287  
DOT EMERGENCY RESPONSE GUIDE #: 151

## 15 REGULATORY INFORMATION

**TSCA:**

All components of this product are listed in the TSCA inventory.

**CERCLA AND/OR SARA REPORTABLE QUANTITY (RQ):**

15 gallons due to CHROMIC (VI) ACID (CRO3); CHROMIUM OXIDE;

**SARA SECTION 312 HAZARD CLASS:**

Immediate(acute);Delayed(Chronic)

**SARA SECTION 302 CHEMICALS:**

No regulated constituent present at OSHA thresholds

**SARA SECTION 313 CHEMICALS:**

CAS#	CHEMICAL NAME	RANGE
1333-82-0	CHROMIC (VI) ACID (CRO3); CHROMIUM OXIDE	6.0-10.0%
24613-89-6	CHROMIUM CHROMATE	2.0-5.0%

**CALIFORNIA REGULATORY INFORMATION**

**CALIFORNIA SAFE DRINKING WATER AND TOXIC  
ENFORCEMENT ACT (PROPOSITION 65) CHEMICALS PRESENT:**

This product contains these chemicals known to the state of California to cause cancer or reproductive toxicity:

CAS#	CHEMICAL NAME
1333-82-0	CHROMIC (VI) ACID (CRO3); CHROMIUM OXIDE
24613-89-6	CHROMIUM CHROMATE

**MICHIGAN REGULATORY INFORMATION**

CAS#	CHEMICAL NAME
1333-82-0	CHROMIC (VI) ACID (CRO3); CHROMIUM OXIDE
24613-89-6	CHROMIUM CHROMATE

## 16 OTHER INFORMATION

NFPA/HMIS		CODE TRANSLATION
Health	3	Serious Hazard
Fire	0	Minimal Hazard
Reactivity	0	Minimal Hazard
Special	NONE	No special Hazard
(1) Protective Equipment	D	Goggles,Face Shield,Gloves,Apron

(1) refer to section 8 of MSDS for additional protective equipment recommendations.

**CHANGE LOG**

	EFFECTIVE DATE	REVISIONS TO SECTION:	SUPERCEDES
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MSDS status:	22-AUG-1995	REVISED FORMAT	** NEW **
	06-NOV-1995	12	22-AUG-1995
	01-JUL-1996	16	06-NOV-1995
	13-FEB-1998	2,3,5,8,14	01-JUL-1996
	19-FEB-1998	2	13-FEB-1998
	05-MAR-1999	2,8,15	19-FEB-1998
	21-NOV-2000	4	05-MAR-1999