



MATERIAL SAFETY DATA SHEET

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FORMULA 423

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SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME: FORMULA 423
GENERAL USE: Heavy duty paint stripper and coating remover
PRODUCT DESCRIPTION: Paint stripper
GENERIC INGREDIENTS: Methylene chloride, cresols, phenol, water, and surfactant

EMERGENCY TELEPHONE NUMBERS: **PENETONE 201-567-3000**
CHEMTREC 800-424-9300

SECTION 2 HAZARDOUS INGREDIENT SECTION

This product is hazardous as defined in 29 CFR1910.1200.

OSHA HAZARD: CORROSIVE

OSHA HAZARDOUS INGREDIENTS

	CAS#	EXPOSURE LIMITS 8 hrs. TWA (ppm)		Supplier
		OSHA PEL	ACGIH TLV	
Methylene chloride	75-09-2	25 (125 STEL)	50	---
Cresol	1319-77-3	5 (skin)	5 (skin)	---
Phenol	108-95-2	5 (skin)	5 (skin)	---

SECTION 3 HEALTH INFORMATION & PROTECTION

EMERGENCY OVERVIEW:

Diphase liquid with strong phenol odor.

POISON. CORROSIVE to eyes, skin, and respiratory tract. Rapidly absorbed through skin.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT:

Will cause burns to eyes on contact. High vapor concentrations may be irritating or corrosive.

SKIN CONTACT:

Will cause burns to skin on contact, but may be disguised by a loss in pain sensation. Rapidly absorbed through skin. Systemic poisoning effects may follow. Discoloration of skin may occur.

INHALATION:

High vapor concentrations may cause burns respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects. Exposure to excessive levels of methylene chloride may impair the blood's ability to transport oxygen (carboxyhemoglobinemia) and may also cause irregular heartbeats (cardiac arrhythmia). Other symptoms listed under ingestion may occur.

INGESTION:

Ingestion will cause burns to the digestive tract. Symptoms may include burning pain in mouth and throat, abdominal pain, nausea, vomiting, headache, dizziness, muscular weakness, central nervous system effects, increase in heart rate, irregular breathing, coma, and possibly death. Acute exposure is also associated with kidney and liver damage. Ingestion of 1 gram of phenol has been lethal to humans. Small amounts of this liquid may be drawn into the lungs by either swallowing or vomiting. This may cause severe and delayed health effects such as inflammation of the lungs, infection of the bronchi, chemical pneumonia, and pulmonary edema.

CHRONIC:

Methylene chloride has produced lung and liver tumors in mice and mammary tumors in female rats in a two year inhalation study. NTP lists methylene chloride as a potential carcinogen. IARC lists methylene chloride in Group 2B (sufficient evidence in animals, insufficient evidence in humans). Industrial experience shows no increased incidences of any cancer type in the worker population.

SYNERGISTIC MATERIALS:

Exposure to a combination of carbon monoxide and methylene chloride must be limited. Where the carbon monoxide concentration equals its exposure limit, there should be no exposure to methylene chloride.

FIRST AID MEASURES:

IN CASE OF CRESOL AND PHENOL POISONING, start first aid treatment immediately, then get medical attention. People administering first aid should take precautions to avoid contact with cresol and phenol. A phenol antidote kit (castor oil or other vegetable oil, polyethylene glycol 300) should be available in any phenol work area. Actions to be taken in case of phenol poisoning should be planned and practiced before beginning work with phenol. Castor oil and or polyethylene glycol can be given by a first responder before medical help arrives.

EYE CONTACT:

IMMEDIATELY flush eyes with large amounts of water. See physician immediately.

SKIN CONTACT:

IMMEDIATELY flush skin with large amounts of water while removing contaminated clothing and shoes. As soon as possible, repeatedly apply polyethylene glycol to affected area. Destroy contaminated clothing and shoes. Flush skin with water for at least 30 minutes. Avoid rubbing or wiping affected parts which would aggravate irritation and cause product dispersion. Continue treatment until the burned area changes color from white to pink (this may take 20 minutes or more). Continue polyethylene glycol treatment during transportation to hospital. If polyethylene glycol is not available, use water. Get medical attention immediately.

INHALATION:

Remove person to fresh air. Administer oxygen or artificial respiration as needed. Call a physician immediately.

INGESTION:

If swallowed, give plenty of milk or water. DO NOT INDUCE VOMITING. Call a physician immediately.

NOTE TO PHYSICIAN:

Because rapid absorption of methylene chloride, cresol, and phenol may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Suggested treatment of phenol and cresol ingestion is gastric lavage using 40% aqueous Bacto-Peptune, milk or water until the phenolic odor is eliminated. Then give 15 to 50 cc castor or vegetable oil. Debride necrotic skin. Monitor vital signs, fluid status, electrolytes, BUN, renal and hepatic function, and electrocardiogram. Manage sedation, seizures, renal failure, and fluid electrolyte imbalances symptomatically as indicated. Use of a 40% aqueous Bacto-Peptune, Exposure from methylene chloride may increase "myocardial irritability." Do not administer sympathomimetic drugs unless absolutely necessary. Carboxyhemoglobinemia may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

WORKPLACE EXPOSURE CONTROLS:**PERSONAL PROTECTION:**

Splash proof goggles or face shield, solvent resistant gloves and outer garment MUST be worn when handling this product.

VENTILATION:

Because of the toxicity of the materials in this product, respirators should be worn at all times around this product. For enclosed areas, or where large amounts of the product are being used, the use of fans or other mechanical ventilation is recommended to remove vapors. Use a half or full face piece organic vapor chemical cartridge or canister respirator when concentrations exceed the permissible limits. Use self-contained breathing apparatus (SCBA) or full face piece airline respirator with auxiliary SCBA operated in the pressure-demand mode for emergencies and for all work performed in storage vessels, poorly ventilated rooms, and other confined areas. DO NOT SPRAY THIS PRODUCT.

SECTION 4 FIRE & EXPLOSION HAZARDS

FLASH POINT: none-to-boil TCC.

FLAMMABLE LIMITS: not determined

AUTOIGNITION TEMPERATURE: not determined

GENERAL HAZARD:

Containers can rupture and explode under fire conditions due to pressure and vapor buildup.

FIRE FIGHTING:

Either allow fire to burn out under controlled conditions or extinguish with water, foam, or dry chemical.
Cool exposed containers with water spray. Use self contained breathing apparatus.
Contain fire run-off. Run-off may cause environmental damage.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, fumes, and oxides of carbon, hydrogen chloride, and possible traces of phosgene.

SECTION 5 SPILL CONTROL MEASURES

LAND SPILL:

For small spills, use absorbent material such as towels or absorbent powders. Put all materials into proper waste disposal containers with lids tightly covered. For larger spills, dike spill, recover free liquid, and use absorbent material to dry area. Put all materials into appropriate waste containers.

WATER SPILL:

THIS PRODUCT IS HEAVIER THAN WATER AND WILL SINK. Recovery may be difficult. Methylene chloride, cresol, and phenol are listed in the Clean Water Act. Check with local environmental regulatory agencies for reporting requirements.

SECTION 6 HANDLING & STORAGE

STORAGE TEMPERATURE, °F: ambient. DO NOT STORE ABOVE 120 Deg. F.

GENERAL: Keep away from open flames, hot glowing surfaces, electric arcs, and other ignition sources. Do not store near strong oxidants. Strong UV light (e.g., welding arcs) can cause significant phosgene to be generated. Vent off any internal pressure in the drum by opening bung slowly. Keep face away when opening bung.

SECTION 7 TYPICAL PHYSICAL & CHEMICAL PROPERTIES

BOILING POINT, °F:

105

VAPOR PRESSURE, mm Hg at 20°C:

100

EVAPORATION RATE, Acetone = 1:

about 1

VAPOR DENSITY (Air = 1):

3

SOLUBILITY IN WATER:

miscible, forms an emulsion

WT% ORGANIC VOLATILES:

about 60

SPECIFIC GRAVITY at 75°F:

1.18

pH:

10.6-11.0

ODOR AND APPEARANCE:

diphase liquid with strong phenol odor

SECTION 8 REACTIVITY DATA

GENERAL:

This product is stable and hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Strong oxidizing agents, caustic potash or caustic soda, and reactive metals (e.g., aluminum, potassium, sodium, zinc, etc.).

SECTION 9 REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT):**PROPER SHIPPING NAME:**

CORROSIVE LIQUID, TOXIC, N.O.S.

(contains dichloromethane and cresylic acid)

HAZARD CLASS: 8**IDENTIFICATION NUMBER:** UN 2922**PACKING GROUP:** II**LABEL:** CORROSIVE, POISON

FLASH POINT: none to boil TCC**pH:** 10.6-11.0**TSCA:** The ingredients in this product are listed on the TSCA inventory.**CERCLA:**

This product contains the following reportable materials:

Methylene chloride	CAS# 75-09-2	RQ = 1000 lbs
Cresol	CAS# 1319-77-3	RQ = 1000 lbs
Phenol	CAS# 108-95-2	RQ = 1000 lbs

Releases exceeding the RQ must be reported to the national response center, 800-424-8802, and may be subject to state and local reporting.

RCRA HAZARD CLASS:

The following waste classes may apply: U080 Dichloromethane; D026, Cresol; U052 Cresol; U188 Phenol; D002 Corrosive hazardous waste; F001 Spent halogenated solvent used in degreasing; F002 Spent halogenated solvent, F004 Spent non-halogenated solvents. The user is responsible for determining the appropriate waste category at the time of disposal.

SARA TITLE III:

311/312 HAZARD CATEGORIES:

Acute and chronic health

313 REPORTABLE INGREDIENTS:

Methylene chloride	CAS# 75-09-2	about 70 wt%
Cresol	CAS# 1319-77-3	about 8 wt%
Phenol	CAS# 108-95-2	about 7 wt%

CLEAN WATER ACT:

Methylene chloride is listed in the as a priority pollutant. Cresol is listed as a hazardous substance. Phenol is listed as a hazardous substance, priority and toxic pollutant.

CLEAN AIR ACT (1990):

Methylene chloride, cresol and phenol are listed in the Clean Air Act as hazardous air contaminants.

NEW JERSEY RIGHT-TO-KNOW INFORMATION:

This product contains methylene chloride (CAS# 75-09-2), water (CAS# 7732-18-5), cresol (CAS# 1319-77-3), phenol (CAS# 108-95-2) and sodium fatty acid soap (CAS# 61790-45-2).

CALIFORNIA PROPOSITION 65 INFORMATION:

This product contains a chemical recognized by the state of California to cause cancer and/or birth defects or reproductive harm.

SCAQMD INFORMATION:

Is there a photochemically reactive material present? No
What is the % by volume of photochemically reactive material? 0
What is the VOC content? About 700 g/l
What is the vapor pressure of VOC's? 100 mm Hg @ 20 Deg. C.

SECTION 10 NOTES

HAZARD RATING SYSTEMS:

	HMIS	NFPA
HEALTH	3	3
FLAMMABILITY	0	0
REACTIVITY	0	0

KEY
4 = Severe
3 = Serious
2 = Moderate
1 = Slight
0 = Minimal

REVISION SUMMARY:

change in header

SUPERSEDES ISSUE DATE:

May 14, 1999

FOR ADDITIONAL PRODUCT INFORMATION, CONTACT YOUR SALES ENGINEER
FOR ADDITIONAL HEALTH/SAFETY INFORMATION, CALL 201-567-3000

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