



MATERIAL SAFETY DATA SHEET

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FOUR WAY

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SECTION 1 PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

PRODUCT NAME: FOUR WAY
GENERAL USE: Lubricating, penetrating
PRODUCT DESCRIPTION: Penetrating oil
GENERIC INGREDIENTS: Aliphatic hydrocarbons, surfactants, penetrating agents

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

SECTION 2 HAZARDOUS INGREDIENT SECTION

This product is hazardous as defined in 29 CFR 1910.1200.

OSHA HAZARD: COMBUSTIBLE

OSHA HAZARDOUS INGREDIENTS

	CAS#	EXPOSURE LIMITS 8 hrs. TWA (ppm)		Supplier
		OSHA PEL	ACGIH TLV	
Aliphatic hydrocarbons	64742-47-8	not established	not established	200
Petroleum process oil	64742-53-6	5mg/mg ³ (oil mist)	5mg/mg ³ (oil mist)	---

SECTION 3 HEALTH INFORMATION & PROTECTION

EMERGENCY OVERVIEW:

Clear amber liquid with slight odor.
Combustible. Can be irritating to eyes, skin, and respiratory tract.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT:

May cause irritation to eyes on prolonged contact. High vapor concentrations may be irritating.

SKIN CONTACT:

Frequent or prolonged contact may irritate or dry the skin, and cause dermatitis. Skin contact may aggravate an existing dermatitis condition.

INHALATION:

High vapor/ concentrations (greater than about 1000 ppm) are irritating to the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects.

INGESTION:

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 and infection of the bronchi. Ingestion may cause irritation to the digestive tract.

FIRST AID MEASURES:

EYE CONTACT:

Flush eyes with large amounts of water. See physician immediately.

SKIN CONTACT:

Flush skin with large amounts of water. Remove contaminated clothing and launder before reuse. If skin irritation develops or persists, consult physician.

INHALATION:

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

INGESTION:

If swallowed, DO NOT INDUCE VOMITING. Use a stomach pump. Call a physician immediately.

WORKPLACE EXPOSURE CONTROLS:

PERSONAL PROTECTION:

Safety glasses are recommended for all workplace conditions.

VENTILATION:

None needed under normal use conditions. For enclosed areas, or where large amounts of the product are being used, the use of fans or other mechanical ventilation is recommended.

SECTION 4 FIRE & EXPLOSION HAZARDS

FLASH POINT: 150°F PMCC, 190°F COC

FLAMMABLE LIMITS: not determined

AUTOIGNITION TEMPERATURE: not determined

GENERAL HAZARD:

Combustible liquid. Can form combustible mixtures at or above the flash point.
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 foam, CO₂, or dry chemical.
Cool exposed containers with water spray.

HAZARDOUS COMBUSTION PRODUCTS:

Smoke, fumes, and oxides of carbon, sulfur and nitrogen.

SECTION 5 SPILL CONTROL MEASURES

LAND SPILL:

Eliminate sources of ignition. For small spills, use absorbent material such as towels or absorbent powders. Put all material into proper waste disposal container with lid tightly covered. **Solvent soaked materials may spontaneously combust.** For larger spills, dike spill, recover free liquid, and use absorbent material to dry area. Rinse area with water. Put all material into appropriate waste containers.

WATER SPILL:

Remove product from water surface by skimming or with suitable absorbents. This product contains surfactants which will cause it to disperse in water. Localized high concentrations of this product may cause fish kills, but no persistent or long term effects will result. Check with local environmental regulatory agencies for reporting requirements.

SECTION 6 HANDLING & STORAGE

STORAGE TEMPERATURE, °F: ambient. Do not store above 120°F.

GENERAL: Keep away from heat sources, open flames, and other ignition sources. Do not store near strong oxidants.

SECTION 7 TYPICAL PHYSICAL & CHEMICAL PROPERTIES

BOILING POINT, °F:

About 400

EVAPORATION RATE, Acetone = 1:

less than 1

SOLUBILITY IN WATER:

emulsifies

SPECIFIC GRAVITY at 75°F:

0.82

ODOR AND APPEARANCE:

clear amber liquid with slight odor

VAPOR PRESSURE, mm Hg at 20°C:

less than 1.0

VAPOR DENSITY (Air = 1):

4.0

WT% ORGANIC VOLATILES:

about 65

pH:

not applicable

SECTION 8 REACTIVITY DATA

GENERAL:

This product is stable and hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID:

Strong oxidizing agents.

SECTION 9 REGULATORY INFORMATION

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

NONHAZARDOUS (nonregulated) MATERIAL

HAZARD CLASS: None**IDENTIFICATION NUMBER:** None**PACKING GROUP:** None**LABEL:** not required**FLASH POINT:** 150°F PMCC**pH:** not applicable**TSCA:** The ingredients in this product are listed on the TSCA inventory.**CERCLA:**

This product contains no CERCLA reportable materials. Contact local authorities to determine if there may be other local reporting requirements.

RCRA HAZARD CLASS:

nonhazardous waste

SARA TITLE III:

311/312 HAZARD CATEGORIES:

Acute health, Fire

313 REPORTABLE INGREDIENTS:

none

NEW JERSEY RIGHT-TO-KNOW INFORMATION:

This product contains aliphatic hydrocarbons (CAS# 64742-47-8), petroleum process oil (CAS# 64742-53-6), azelate ester (CAS# 28472-97-1), and petroleum sulfonate (CAS# 68608-26-4).

CALIFORNIA PROPOSITION 65 INFORMATION:

This product does not contain any chemicals 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? 533 g/l
What is the vapor pressure of VOC's? 0.10 mm Hg @ 20°C

SECTION 10 NOTES

HAZARD RATING SYSTEMS:

	HMIS	NFPA
HEALTH	1	1
FLAMMABILITY	2	2
REACTIVITY	0	0

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

REVISION SUMMARY:

Change in Section 9

SUPERSEDES ISSUE DATE:

February 24, 2004

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

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