



**FOUR-WAY™**

Page: 1 of 7  
Date Prepared: March 15, 2015  
MSDS No.: 4540

**SECTION 1: IDENTIFICATION**

**Product name:** FOUR-WAY

**Recommended use:** Lubricating, penetrating, water displacing, rust inhi tor solvent

**Physcial Description:** Clear amber liquid with mild odor

**Generic Ingredients:** Hydrocarbon solvents, surfactants, penetrating agents,

**Manufacturer:**

Penetone Corporation  
700 Gotham Parkway  
Carlstadt, NJ 07072  
800-631-1652 or 201-567-3000

**Business Contact:**

Customer Service  
800-631-1652 x2602 or 2272  
Product Safety  
800-631-1652 x2211 or 2257

**Emergency Phone Numbers:** PENETONE 201-567-3000 CHEMTREC 800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS CLASSIFICATION:**

<p><b>Health:</b> Aspiration hazard: 1 Eye irritation: 2B Skin irritation: 2</p>	<p>Specific target organ toxicity - single exposure: 3</p> <p><b>Physical:</b> Flammable liquid: 4</p>
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**DANGER!**

May Be Fatal If Swallowed and Enters Airways.  
Causes Eye and Skin Irritation.  
May Cause Drowsiness or Dizziness.  
Combustible Liquid.



<p><b>Precautionary Statements:</b></p>	
<p><u>Prevention:</u> Keep away from flames and hot surfaces.--No smoking. Avoid breathing fumes/vapor/mist/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves, eye protection, and face protection. Wash hands and exposed skin thoroughly after handling.</p> <p><u>Response:</u> <i>In case of fire:</i> Use dry chemical, carbon dioxide, water spray, water fog, or foam. Do not use solid water stream as this may spread the fire. <i>If swallowed:</i> Immediately call a poison center, doctor, emergency room, or 911. Do NOT induce vomiting. <i>If in eyes:</i> Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.</p>	<p><i>If on skin (or hair):</i> Take off contaminated clothing and wash it before reuse. Wash plenty of water or shower. A mild soap may be used. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. <i>If inhaled:</i> Remove person to fresh air and keep comfortable for breathing. Call a poison center, doctor, emergency room, or 911 if you feel unwell.</p> <p><u>Storage:</u> Store locked up. Store in a well ventilated place. Keep container tightly closed. Keep cool.</p> <p><u>Disposal:</u> Dispose of contents/container in accordance with local, regional, and national regulations (see Sections 13 and 15 of SDS for disposal and reporting requirements).</p>

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

<b>Chemical Name</b>	<b>CAS#</b>	<b>Concentration Wt% (1)</b>
Aliphatic petroleum naphtha	64742-47-8	50-75
Petroleum process oil	64742-53-6	10-25



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**FOUR-WAY™**

Page: 2 of 7  
Date Prepared: March 15, 2015  
MSDS No.: 4540

---

Azelate ester	28472-97-1	10-25
Petroleum sulfonate	68608-26-4	1-10

(1) Exact percentages being withheld under trade secret provision of OSHA HCS 1910.1200(i)

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**SECTION 4: FIRST-AID MEASURES****General Description of Symptoms & First-Aid Measures**

Most likely work-place exposure routes will be *skin contact* or *inhalation*.

For *skin contact*, typically no immediate effects will be observed. Slight reddening or minor irritation could develop some time after exposure if product is not quickly washed off. For sensitive individuals, a rash may appear.

*Inhalation* exposure may produce varied effects, particularly if exposure occurs above the recommended workplace exposure limits (see SECTION 8). Typical symptoms would include headaches, dizziness, and drowsiness. In extreme cases, unconsciousness and other central nervous effects may occur.

**Eyes**

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists or develops: Get medical advice or attention. Penetone recommends that after any eye exposure a physician be seen immediately.

**Ingestion**

If swallowed: Immediately call a poison center, doctor, physician or other competent medical authority. Rinse mouth. Product presents an aspiration hazard. **DO NOT INDUCE VOMITING.**

**Inhalation**

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center, doctor, physician or other competent medical authority if you feel unwell.

**Skin**

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. A mild soap may be used to wash skin. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice or attention.

**Special Treatment / Other**

None

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**SECTION 5: FIRE FIGHTING MEASURES****Flammable Properties**

**Classification:** 4

**Flash Point:** 150°F TCC, 190°F COC

**Autoignition Temperature:** not determined

**Lower Flammable Limit:** not determined **Upper Flammable Limit:** not determined

**Specific Hazards**

Combustible liquid. Can form flammable mixtures at or above the flash point.

**Extinguishing Media**

**Suitable:** SMALL FIRE: Use dry chemical, carbon dioxide (CO<sub>2</sub>), water spray or regular foam. LARGE FIRE: water spray, water fog, or foam.

**Unsuitable:** Do not use solid water stream as this may spread fire.



**FOUR-WAY™**

Page: 3 of 7  
Date Prepared: March 15, 2015  
MSDS No.: 4540

---

**Protection & Precautions for Firefighters**

**Protective Equipment & Clothing:** Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.

**Fire Fighting Guidance:** Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do it safely. Dike fire control water for later disposal; do not scatter material. Containers can expand and explode under fire conditions due to vapor buildup. Always stay away from containers engulfed in fire.

**Hazardous Combustion Products:** Smoke, fumes, and oxides of carbon and sulfur.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Land Spill**

Eliminate sources of ignition. Do not touch or walk through spilled material. Stop leak if you can do it safely. For large spills, dike and pump into properly labeled containers for reclamation or disposal. For small spill, soak up with absorbent material and place in properly labeled containers for disposal.

**Water Spill**

Product is lighter than water and will float. Remove product from water surface by skimming or with suitable absorbents. Put into properly labeled containers for reclamation or disposal. If allowed by local environmental regulatory agencies, you may use a suitable dispersant. Check with local environmental regulatory agencies for reporting requirements.

See **SECTION 8 for EXPOSURE CONTROLS and PERSONAL PROTECTION.**

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**SECTION 7: HANDLING & STORAGE**

**Handling**

Do not handle near heat, sparks, or flame. Avoid contact with oxidizing agents. Use only with adequate ventilation/personal protection (SEE section 8). Avoid contact with eyes, skin and clothing. After handling, always wash hands thoroughly with soap and water. Avoid personal contact with any residue. Dispose of empty containers with care. Empty containers can contain flammable residue and explosive vapors. **Do not cut, weld, or reuse empty container.**

**Storage**

Store in a well-ventilated place. Keep container tightly closed. Open slowly in order to control possible pressure release. Keep cool. Store locked up. Do not store near heat, sparks, open flame, or other ignition sources. Do not store near strong oxidizing agents. Do not store in direct sunlight. Avoid storing above 120°F (49°C).

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**SECTION 8: EXPOSURE CONTROLS and PERSONAL PROTECTION**

**Engineering Controls**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

**Personal Protection**

**Inhalation** A respiratory protection program that meets OSHA's 29 CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use. Use of an organic vapor mask or respirator is recommended.

**Skin** Wear chemical resistant gloves such as: rubber, nitrile, neoprene, or latex when skin contact is possible. Protective clothing including gloves, apron, sleeves, boots, head and face protection should be worn depending on how the product is used. PPE should be cleaned thoroughly after each use.



**FOUR-WAY™**

Page: 4 of 7  
Date Prepared: March 15, 2015  
MSDS No.: 4540

**Eyes** Penetone recommends always wearing safety glasses as a minimum in any workplace. Conditions may warrant the use of chemical goggles and possibly a face shield. Consult your standard operating procedure or safety professional for advice. Use protective eye and face devices that comply with ANSI Z87.1-1987.

**Additional Remarks**

Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use.

**Occupational Exposure Limits**

<u>Component Name</u>	<u>Source</u>	<u>Value</u>	<u>Type</u>	<u>Notation</u>	
Aliphatic petroleum naphtha	ACGIH	1200 mg/m <sup>3</sup>	TWA	Appendix H	
	NIOSH	350 mg/m <sup>3</sup>	TWA		
		1800 mg/m <sup>3</sup>	C		
Petroleum process oil	OSHA Z1	500 ppm	TWA	15 minutes	
	ACGIH	5 mg/m <sup>3</sup> (l)	TWA		A4
	NIOSH	5 mg/m <sup>3</sup>	TWA		
	OSHA	5 mg/m <sup>3</sup>	TWA		

**SECTION 9: PHYSICAL & CHEMICAL PROPERTIES**

**Appearance:** clear amber liquid  
**Odor:** mild odor  
**Odor Threshold:** not determined  
**pH:** not applicable  
**Melting Point / Freezing:** less than 20°F  
**Boiling Point / Boiling Point Range:**  
**Flash Point:** 150°F TCC, 190°F COC  
**Evaporation Rate:** less than 0.01 (acetone=1)  
**Flammability:** not applicable  
**Lower Flammable Limit:** not determined  
**Upper Flammable Limit:** not determined  
**Explosive Properties:** not explosive  
**Vapor Pressure:** less than 0.5 mm Hg @ 20°C (68°F)  
**Relative Vapor Density:** not determined  
**Relative Density:** 0.82  
**Solubility (Water):** insoluble  
**Partition Coefficient (K<sub>ow</sub>):** not determined  
**Auto-ignition temperature:** not determined  
**Decomposition temperature:** not determined  
**Viscosity:** less than 5 centipoise at room temperature

**SECTION 10: STABILITY & REACTIVITY**

**Reactivity**

Not reactive.

**Chemical Stability**

Stable under normal conditions.



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**FOUR-WAY™**

Page: 5 of 7  
Date Prepared: March 15, 2015  
MSDS No.: 4540

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**Hazardous Reactions**

No hazardous reactions or under normal storage conditions. Hazardous polymerization will not occur.

**Conditions to Avoid**

Product is a combustible liquid. Do not store near sources of heat, sparks, open flame, or other ignition sources.

**Incompatible Materials**

Strong oxidizing agents.

**Hazardous Decomposition Products**

Carbon monoxide and dioxide and sulfur when burned.

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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**Product Summary**

Product is essentially non-toxic. May cause mild, short lasting discomfort to the eye. Prolonged or repeated exposure may dry the skin leading to discomfort and dermatitis. Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, and may cause headaches, dizziness, drowsiness, unconsciousness and other central nervous system effects.

**Acute Toxicity:**

**Dermal:** LD50 > 4,000 mg/kg rabbit

**Inhalation:** LC50 > 5,000 mg/m<sup>3</sup> (vapor) 8 hrs rat

**Oral:** LD50 > 4,000 mg/kg rabbit

**Skin Corrosion/Irritation**

No data available. Product is considered mildly irritating based on component data and comparison to similar products. May dry the skin leading to discomfort and dermatitis.

**Serious Eye Damage/Irritation**

No data available. Product is considered mildly irritating based on component data and comparison to similar products. May cause mild, short-lasting discomfort.

**Sensitization - Respiratory or Skin**

Not expected to be a respiratory or skin sensitizer. Based on test data for structurally similar materials.

**Germ Cell Mutagenicity**

Not expected to be a germ cell mutagen. Based on test data for structurally similar materials.

**Carcinogenicity**

Not expected to cause cancer. Based on test data for structurally similar materials.

ACGIH lists mineral oils as A4: Not classifiable as a human carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data

**Reproductive Toxicity**

Not expected to be a reproductive toxicant. Based on test data for structurally similar materials.

**Specific Target Organ Effects - Single Exposure**

Not expected to cause organ damage from a single exposure.

**Specific Target Organ Effects - Repeated or Prolonged Exposure**

Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials.

**Aspiration Hazard**

Based upon available data and comparison to similar materials, if swallowed, may pose a lung aspiration hazard



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**FOUR-WAY™**

Page: 6 of 7  
Date Prepared: March 15, 2015  
MSDS No.: 4540

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during vomiting. Lung aspiration may result in chemical pneumonitis, pulmonary edema, and damage to lung tissue or death.

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**SECTION 12: ECOLOGICAL INFORMATION**

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**Product Summary**

Product will have minimal impact on aquatic organisms.

**Ecotoxicity**

Not expected to be harmful to aquatic organisms. Not expected to demonstrate chronic toxicity to aquatic organisms.

**Persistence and Degradability**

Expected to be readily biodegradable. Transformation due to hydrolysis and photolysis not expected to be significant. Expected to degrade rapidly in air.

**Bioaccumulative Potential**

Due to biodegradability, expected to have low bioaccumulative potential.

**Mobility in soil**

Expected to adsorb onto soil

**Other Adverse Effects**

None known

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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Product is a nonhazardous waste under RCRA definitions. Dispose of contents/container in accordance with all applicable federal, state, and local regulations.

**Note:** Contaminated product, soil, water, container residues and spill cleanup materials may be hazardous wastes. Appropriate hazardous waste designation is the responsibility of the user.

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**SECTION 14: TRANSPORT INFORMATION**

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<b>ID No.:</b>	Not applicable, nonhazardous (non-regulated) material
<b>Proper Shipping Name:</b>	Not applicable
<b>Hazard Class:</b>	Not applicable
<b>Packing Group:</b>	Not applicable
<b>Label:</b>	None
<b>Marine Pollutant:</b>	No
<b>RQ:</b>	None
<b>Special Precautions:</b>	None

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**SECTION 15: REGULATORY INFORMATION**

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**TSCA**

The ingredients in this product are listed on the TSCA inventory.

**RCRA HAZARD CLASS**

Product is a nonhazardous waste.



**FOUR-WAY™**

Page: 7 of 7  
 Date Prepared: March 15, 2015  
 MSDS No.: 4540

**SARA 311/312 REPORTABLE HAZARD CATEGORIES:** Immediate (Acute) Health Fire

**REPORTING REQUIREMENTS** (all quantities in pounds)

Component	CAS / 313 Code	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ	Section 313	CAA 112(r) TQ	CWA / OPA
no components subject to reporting requirements							

**NEW JERSEY RIGHT-TO-KNOW INFORMATION**

This product contains aliphatic petroleum naphtha (CAS# 64742-47-8), petroleum process oil (CAS 64742-53-6), azelate ester (CAS# 28472-97-1), and petroleum sulfonate (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? 533g/l  
 What is the vapor pressure of VOC's? Less than 0.5 mm Hg @ 20°C (68°F)

**SECTION 16: OTHER INFORMATION**

**REVISION SUMMARY**

New GHS format

**SUPERSEDES ISSUE DATE**

February 24, 2004

**HAZARD RATING SYSTEMS:**

	<u>HMIS</u>	<u>NFPA</u>
HEALTH	1	1
FLAMMABILITY	2	2
REACTIVITY	0	0
	B	

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

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

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