



FOUR-WAY™ AEROSOL

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Date Prepared: August 11, 2015
MSDS No.: 454089

SECTION 1: IDENTIFICATION

Product name: FOUR-WAY AEROSOL

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, propellant

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>Health: Aspiration hazard: 1 Eye irritation: 2B Skin irritation: 2</p>	<p>Specific target organ toxicity - single exposure: 3 Physical: Flammable aerosol: 1 Compressed gas</p>
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DANGER!

Extremely Flammable Aerosol.
Contains Gas Under Pressure; May Explode if Heated.
May Be Fatal If Swallowed and Enters Airways.
Causes Eye and Skin Irritation.
May Cause Drowsiness or Dizziness.



Precautionary Statements:	
<p><u>Prevention:</u> Keep away from heat/sparks/open flames/hot surfaces.--No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid breathing fumes, vapors or mists if inhalable mists occur during use. 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> Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store locked up. Store in a well ventilated place.</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>



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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Concentration Wt% (1)
Aliphatic petroleum naphtha	64742-47-8	50-75
Petroleum process oil	64742-53-6	10-25
Azelate ester	28472-97-1	10-25
Petroleum sulfonate	68608-26-4	1-10
Carbon dioxide	124-38-9	1-10

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

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

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

Flammable aerosol. Aerosol cans are under pressure. Exposure to temperatures above 120°F can cause bursting of cans. Containers can rupture and explode under fire conditions due to pressure and vapor buildup.



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Extinguishing Media

Suitable: SMALL FIRE: Use dry chemical, carbon dioxide (CO₂), 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.

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.

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.

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. 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).

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



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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.

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

Component Name	Source	Value	Type	Notation
Aliphatic petroleum naphtha	ACGIH	1200 mg/m ³	TWA	Appendix H
	NIOSH	350 mg/m ³	TWA	
		1800 mg/m ³	C	
Petroleum process oil	OSHA Z1	500 ppm	TWA	A4
	ACGIH	5 mg/m ³ (l)	TWA	
	NIOSH	5 mg/m ³	TWA	
Carbon dioxide	OSHA	5 mg/m ³	TWA	
	ACGIH	5,000 ppm	TWA	
	NIOSH	30,000 ppm	STEL	
		5,000 ppm	TWA	
	OSHA	30,000 ppm	STEL	
OSHA	5,000 ppm	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_{ow}):** not determined
- Auto-ignition temperature:** not determined
- Decomposition temperature:** not determined
- Viscosity:** less than 5 centipoise at room temperature



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SECTION 10: STABILITY & REACTIVITY

Reactivity

Not reactive.

Chemical Stability

Stable under normal conditions.

Hazardous Reactions

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

Conditions to Avoid

Product is a considered a flammable aerosol. 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.

SECTION 11: TOXICOLOGICAL INFORMATION

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.

NOTE: Values in this section refer only to the liquid.

Acute Toxicity:

Dermal: LD50 > 4,000 mg/kg rabbit

Inhalation: LC50 > 5,000 mg/m³ (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.



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

SECTION 12: ECOLOGICAL INFORMATION

Product Summary

Product will have minimal impact on aquatic organisms.

NOTE: Values in this section refer only to the liquid.

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

SECTION 13: DISPOSAL CONSIDERATIONS

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.

SECTION 14: TRANSPORT INFORMATION

ID No.: UN1950
Proper Shipping Name: AEROSOLS



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Hazard Class: 2.1
Packing Group: Not applicable
Label: FLAMMABLE AEROSOL
Marine Pollutant: No
RQ: None
Special Precautions: None

SECTION 15: REGULATORY INFORMATION

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

RCRA HAZARD CLASS
Product is a nonhazardous waste.

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 (64742-47-8), petroleum process oil (64742-53-6), azelate ester (28472-97-1), petroleum sulfonate (68608-26-4), and carbon dioxide (124-38-9).

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
July 3, 2007

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



SAFETY DATA SHEET

Penetone® Corporation, 700 Gotham Parkway, Carlstadt, NJ 07072

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