

Performance Chemical Co.

Product: Pro-Flow 575

Current Issue Date: June-01-2016

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Pro-Flow 575

GHS

Safety Data Sheet

From: Performance Chemical Co.

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All non-emergency questions should be directed to 432-333-2370 for assistance.

24 Hour Emergency Telephone
CHEM-TEL, INC. 1-800-255-3924

NOTE: CHEM-TEL emergency number to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals.

1. Product Identification

Trade Name: Pro-Flow 575 Surfactant
CAS Number: Mixture – See Section 2
Product Family: Complex Mixture. Contains DiEthylene Glycol, Ethylene Glycol
Synonyms: N/AP

2. Hazards Identification

Hazards Classification: Acute Toxicity-Category 5
Skin Irritant-Category 3
Eye Irritant-Category 2b
Aspiration Hazard-Category 2



WARNING

Hazard Statement:

CAUTION-IRRITANT - CENTRAL NERVOUS SYSTEM-HARMFUL OR FATAL IF SWALLOWED - ASPIRATION HAZARD

Precautionary Statement:

Keep away from heat, sparks, open flame, and other ignition sources.

If swallowed, and patient is fully conscious and alert, give 2 to 4 glasses of water or milk, and INDUCE VOMITING. Get medical attention immediately.

Contact with this product may cause eye, skin, and mucous membrane irritation. Avoid prolonged breathing of vapors or mists. Inhalation may cause irritation, anesthetic effects (dizziness, nausea, headache, intoxication) and respiratory system effects.

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3. Composition / Information on Ingredients

Component Name	CAS Registry No.	Concentration % (Wt.)
* Ethylene Glycol	107-21-1	< 3%
Diethylene Glycol	111-46-6	< 15%

* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

4. First Aid Measures:

Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS.

Inhalation	Immediately move individual to fresh air. If individual is not breathing, immediately begin artificial respiration. If heart has stopped, immediately begin CardioPulmonary Resuscitation (CPR). If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.
Eye Contact	Check for and remove contact lenses. Immediately flush eyes with cool, clean low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention immediately.
Skin Contact	Remove contaminated shoes and clothing. Flush affected area with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. Do not use ointments. If skin surface is not damaged, clean affected area thoroughly with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists.
Ingestion	If patient is fully conscious and alert, give 2 to 4 cups of water or milk, INDUCE VOMITING by touching the back of the patient's throat with finger. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. If spontaneous vomiting is about to occur, place individual's head below his knees. If individual is drowsy or unconscious, place on his left side with head down. Do not leave individual unattended. Seek medical attention immediately.
Notes to Physician	This product contains Ethylene Glycol , which can cause intoxication and central nervous system depression. If severe exposure is suspected, observe for 48 to 72 hours for delayed pulmonary edema. Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis. Vigorous anti-inflammatory / steroid treatment may be required at first evidence of upper airway or pulmonary edema. Administer 100 percent humidified supplemental oxygen with assisted ventilation as required. If ingested, administer an aqueous slurry of activated charcoal followed by a cathartic such as magnesium citrate or sorbitol. Also, treatment may involve careful gastric lavage if performed soon after ingestion or in patients who are comatose or at risk of convulsing. Protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position. Obtain chest X-ray and liver function tests. Monitor for cardiac function, respiratory distress and arterial blood gases in severe exposure cases. Ethanol (drinking alcohol) is antidotal and should be administered early in the treatment. Ethanol is a potent inhibitor of Ethylene Glycol metabolism because it is preferentially acted on by liver alcohol dehydrogenase, thus delaying or preventing toxic metabolites from Ethylene Glycol. Treatment is started after residual ingested substance is removed from the stomach. Ethanol is administered orally or IV with a goal of maintaining a blood alcohol level of approximately 22 mmol/L or 1.0 mg/L. To prepare antidote, make a solution using 100 ml of 100 proof ethyl alcohol and 1900 ml of water. Give 1.5 ml/kg or 100 ml for an average adult. This may be mixed with orange juice for oral use if necessary. More Ethanol is to be given at 2 hour intervals to achieve and maintain the desired blood alcohol levels. Treatment may be necessary for several days. The patient should be monitored for metabolic acidosis. Use of appropriate buffering solutions, such as bicarbonate, may be indicated. Hemodialysis may be required.

5. Fire Fighting Measures

NFPA Flammability Classification	Not a flammable substance.
Flash Point Method	CLOSED CUP: > 220 ° F. (104 ° C.). (Tagliabue [ASTM D-56])

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Flammable Limits	Lower: N/AP Upper: N/AP
Autoignition Temperature	No Data
Hazardous Combustion Products	Burning or excessive heating may produce smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, sulfur, and possibly other harmful gasses and/or vapors.
Fire and Explosion Hazards	Use only with adequate ventilation. If container is not properly cooled, it can rupture in the heat of a fire. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) may ignite explosively.
Extinguishing Media	Use dry chemicals, carbon dioxide (CO ₂), foam, water fog, or inert gas (nitrogen).
Fire Fighting Instructions	NEVER use a water jet directly on the fire because it may spread the fire to a larger area. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS. Notify appropriate authorities if liquid(s) enter sewers / waterways.

6. Accidental Release Measures

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this MSDS.

General	Stop the leak if it can be done without risk. Do not touch or walk through spilled material. CAUTION: SLIPPERY. Released material may be slippery on smooth, hard surfaces, especially when wet. Absorb or cover with dry earth, sand, or other non-combustible material, and transfer to appropriate waste containers. Use clean, non-sparking tools to collect absorbed material.
Small Spills	Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to container for disposal.
Large Spills	Secure area and control access. Dike far ahead of a liquid spill to ensure complete collection. Water mist or spray may be used to reduce or disperse vapors. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If run-off occurs, notify proper authorities that a spill has occurred. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

7. Handling and Storage

Handling	<p>Keep containers closed and do not handle or store near heat, sparks, or any other potential ignition sources. Bond and ground all equipment before transferring this material from one container to another. Do not breathe vapor. Use only with adequate ventilation / personal protection. Never siphon by mouth or take internally. Avoid contact with eyes, skin and clothing. Prevent contact with food, chewing, or smoking materials.</p> <p>When performing repairs and maintenance on contaminated equipment, keep unnecessary persons away from the area. Eliminate all potential ignition sources. Drain and purge equipment, as necessary, to remove material residues. Use gloves constructed of impervious materials and protective clothing if direct contact is anticipated. Provide ventilation to maintain exposure potential below applicable exposure limits. Promptly remove contaminated clothing. Wash exposed skin thoroughly with soap and water after handling.</p> <p>Empty containers may contain material residues which may ignite with explosive force. Misuse of empty containers can be dangerous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers can cause fire, explosion, or release of toxic fumes from residues. Do not pressurize or expose empty containers to open flame, sparks, or heat. Keep container closed and drum bungs in place. All label warnings and precautions must be observed. Return empty drums to a qualified reconditioner. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling, or disposing of empty containers and/or waste residues of this material. Emergency eyewash fountains and safety showers should be available in the immediate vicinity of potential exposure.</p>
Storage	Store and transport in accordance with all applicable laws. Keep containers tightly closed and store in a cool, dry, well-ventilated place, plainly labeled, and out of closed vehicles. Keep away from all ignition sources. Containers should be able to withstand pressures expected from warming and cooling in storage. This product should be stored in a cool, well-ventilated area. All electrical equipment in areas where this material is stored or handled should be installed in accordance with applicable requirements of the NFPA's National Electrical Code (NEC).

8. Exposure Controls and Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and/or mists below the pertinent exposure limits (see below). All electrical equipment should comply with the NFPA NEC Standards. Ensure that an emergency eye wash station and safety shower are near the work-station location.

Personal Protective Equipment (PPE) Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. The following pictograms represent the minimum requirements for personal protective equipment. For certain operations, additional Personal Protective Equipment may be required.



Eye Protection Safety glasses with side shields are recommended as a minimum protection. During transfer operations or when there is a likelihood of misting, splashing, or spraying, chemical goggles and face shield should be worn. Suitable eye wash equipment should be readily available.

Hand Protection Avoid skin contact and use gloves (disposable PVC, neoprene, Nitrile, vinyl, or PVC/NBR). Before eating, drinking, smoking, use of toilet facilities, or leaving work, wash hands with plenty of mild soap and water. DO NOT use gasoline, kerosene, other solvents, or harsh abrasive skin cleaners.

Body Protection Avoid skin contact. If splashing or spraying is expected, chemical-resistant protective clothing (Tyvek[®], Nitrile, or neoprene) should be worn. This might include long sleeves, apron, slicker suit, boots, and additional facial protection. If general contact occurs, IMMEDIATELY remove soaked clothing and take a shower. Contaminated leather goods should be removed promptly and discarded.

Respiratory Protection For unknown vapor concentrations use a positive-pressure, pressure-demand, self-contained breathing apparatus (SCBA). For known vapor concentrations above the occupational exposure guidelines (see below), use a NIOSH-approved organic vapor respirator if adequate protection is provided. Protection factors vary depending upon the type of respirator used. Respirator use should follow OSHA requirements (29 CFR 1910.134) or equivalent standard (e.g. ANSI Z88.2).

General Comments Warning! Odor is an inadequate warning for hazardous conditions.

Occupational Exposure Guidelines

Substance	Applicable Workplace Exposure Levels	
Ethylene Glycol	US(ACGIH)/1997	39.4 ppm Ceiling
	US(OSHA)/1997	None Established
	(DuPont)/1997	50 ppm, 8Hr. TWA, vapor
	(DuPont)/1997	10 mg/m ³ , 8Hr. TWA, particulate
Diethylene Glycol	US(ACGIH)/1997	None Established
	US(OSHA)/1997	None Established
	(DuPont)/1997	100 ppm, 8 & 12 Hr. TWA, vapor
	(DuPont)/1997	10 mg/m ³ , 8 & 12 Hr. TWA, aerosol

9. Physical and Chemical Properties

Physical State	Liquid	Color	Transparent, Light Amber.
Odor	Characteristic Odor	pH	7.0
Specific Gravity	1.0187 gm./ml.	Liquid Density	8.455 Lbs. / Gallon
Vapor Pressure	21.5 mm Hg @ 68 ° F.	Vapor Density	~ 1.0 (Air = 1)
Boiling Point / Range	> 200° F.	Freezing Point	App. +15° F.
Evaporation Rate	Slower than Ethyl Ether	Solubility in Water	Soluble at all temperatures

10. Stability and Reactivity

Chemical Stability	Stable
Hazardous Polymerization	Not expected to occur.

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Conditions to Avoid	Keep away from extreme heat, sparks, open flame, and strongly oxidizing conditions.
Materials Incompatibility	Strong oxidizing agents, Chlorine. Strong mineral acids.
Hazardous Decomposition Products	May form carbon monoxide, carbon dioxide, and other oxides of carbon, and nitrogen.

11.Toxicological Information

Product Summary	This product contains Ethylene Glycol and Diethylene Glycol, which produce symptoms of intoxication. Gross overexposure can produce severe central nervous system depression, coma, and possibly fatal respiratory failure.
Carcinogenicity	None of the intentional materials in this product are listed by ACGIH, NIOSH, NTP or OSHA.
Immediate (Acute) Effects	Ethylene Glycol: LD50 (Oral – rat): 4700 mg/kg LD50 (Skin – rabbit): 9530 mg/kg Irritation (Skin – rabbit): 555 mg (open), mild; (Eye – rabbit): 500 mg/24H, mild. Diethylene Glycol: LD50 (Oral – rat): 20760 mg/kg LD50 (Skin – rabbit): 13324 mg/kg
Delayed (Subchronic and Chronic) Effects	Repeated small exposures by any route can cause severe kidney problems. Brain damage may also occur. Skin allergy can develop. May damage the developing fetus.
Reproductive Effects	Ethylene Glycol: Has shown teratogenic effects in laboratory animals.
Neurotoxicity	No information available
Mutagenicity	No Data.
Other Studies	No Data.

12.Ecological Information

Ecotoxicity	Ecological effects testing has not been conducted on this material. If spilled, this material, its storage tank water bottoms and sludge, and any contaminated soil or water may be hazardous to human, animal, and aquatic life.
Environmental Fate	When released into the soil: This material is expected to readily biodegrade. This material is expected to leach into groundwater. This material is not expected to evaporate significantly When released into water: This material is expected to readily biodegrade. This material is expected to have a half-life between 1 and 10 days. This material is not expected to bioaccumulate

13.Disposal Considerations

Waste Management Information	Dispose of in accordance with all applicable local, state, and federal regulations. Recovered non-usable material may be regulated by US EPA as a hazardous waste due to its ignitability and/or its toxic characteristics. In addition, conditions of use may cause this material to become a hazardous waste, as defined by Federal or State regulations. It is the responsibility of the user to determine if the material is a RCRA “hazardous waste” at the time of disposal. Transportation, treatment, storage, and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR Parts 260 through 271). State and/or local regulations might be even more restrictive. Contact the RCRA/Superfund Hotline at (800) 424-9436 or your regional US EPA office for guidance concerning case specific disposal issues.
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14.Transport Information

DOT Information - 49 CFR 172.101

Proper Shipping Name	DOT NOT REGULATED Note: Packages containing less than 5,000 Lbs. Ethylene Glycol are not regulated by DOT
Hazard Class	N/AP
Packing Group	III

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UN / NA ID	None	
NOS Component		
RQ (Reportable Quantity) – 49 CFR 172.101	<u>Component</u>	<u>Product Quantity (Lbs.)</u>
	Ethylene Glycol	5,000 Lbs.
ERG No.	N/App.	
Placards Required	None	

15. Regulatory Information

TSCA Inventory	The intentional ingredients of this product are listed.		
CERCLA RQ - 40 CFR 302.4(a)	<u>Component</u>	<u>RQ (Lbs.)</u>	
	Ethylene Glycol	5,000 Lbs.	
SARA 302 Components – 40 CFR 355 Appendix A	None identified		
SARA 311/312 - 40 CFR 370.2	Acute (Immediate) Health Hazard.		
SARA 313 Components - 40 CFR 372.65	<u>Section 313 Component(s)</u>	<u>CAS Number</u>	<u>%Wt.</u>
	Ethylene Glycol	107-21-1	< 6%
OSHA Process Safety Management – 29 CFR 1910	None Listed		
EPA Accidental Release Prevention – 40 CFR 68	None Listed		
California Proposition 65	No Data Available		
New Jersey RTK Label Information	<u>Section 313 Component(s)</u>	<u>CAS Number</u>	
	Ethylene Glycol	107-21-1	
Pennsylvania RTK Label Information	<u>Section 313 Component(s)</u>	<u>CAS Number</u>	
	Ethylene Glycol	107-21-1	

16. Other Information

Disclaimer of Liability:

The information in this msds was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. This msds was prepared and is to be used only for this product.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with handling, storage, use or disposal of the product.

Abbreviations:

App. = Approximately EQ = Equal > = Greater Than < = Less Than N/AP = Not Applicable ND = No Data
NE = Not Established

ACGIH = American Conference of Governmental Industrial Hygienists
IARC = International Agency for Research on Cancer
NIOSH = National Institute of Occupational Safety and Health
NPCA = National Paint and Coating Manufacturers Association
NFPA = National Fire Protection Association

AIHA = American Industrial Hygiene Association
NTP = National Toxicology Program
OSHA = Occupational Safety and Health Administration
HMIS = Hazardous Materials Information System
EPA = Environmental Protection Agency

Explanation of the HMIS® Ratings

HMIS® III - HEALTH HAZARD RATINGS

* **Chronic Hazard** Chronic (long-term) health effects may result from repeated overexposure

0 Minimal Hazard No significant risk to health

1 Slight Hazard Irritation or minor reversible injury possible

2 Moderate Hazard Temporary or minor injury may occur

3 Serious Hazard Major injury likely unless prompt action is taken and medical treatment is given

4 Severe Hazard Life-threatening, major or permanent damage may result from single or repeated overexposures

HMIS® III - FLAMMABILITY RATINGS

0 Minimal Hazard Materials that will not burn

1 Slight Hazard Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

2 Moderate Hazard Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

3 Serious Hazard Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

4 Severe Hazard Flammable gases, or very volatile flammable liquids with flash points below 73 F, and boiling points below 100 F. Materials may ignite spontaneously with air. (Class IA)

HMIS® III - PHYSICAL HAZARD RATINGS

0 Minimal Hazard Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

1 Slight Hazard Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

2 Moderate Hazard Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

3 Serious Hazard Materials that may form explosive mixtures with water and are capable of detonation or explosive reaction in the presence of a strong initiating source. Materials may polymerize, decompose, self-react, or undergo other chemical change at normal temperature and pressure with moderate risk of explosion.

4 Severe Hazard Materials that are readily capable of explosive water reaction, detonation or explosive decomposition, polymerization, or self-reaction at normal temperature and pressure.