



SAFETY DATA SHEET - AF-400 & AF-400S

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1. Identification

Product Name:	AF-400 & AF-400S Cleaning & Deburring Compound
Manufacturer/Supplier:	RockRidge Abrasives 9000 Byron Commerce Dr. SW Byron Center, MI 49315
Telephone/Fax Number:	Phone: 716-759-6600 Fax: 716-759-6602
E-Mail:	sales@rockridgeabrasives.com
Date of Revision:	12/6/2024

2. Hazard(s) Identification

Classification of the substance or mixture

Physical Hazard Corrosive to Metals (Category 1): May be corrosive to metals.
Health Hazards Acute Toxicity, Oral (Category 4): Harmful if swallowed.
Skin Corrosion/Irritation (Category 1): Causes severe skin burns and eye damage.
Eye Damage/Irritation (Category 1): Causes serious eye damage.
Specific Target Organ Toxicity (Single Exposure) (Category 3): May cause respiratory irritation.

GHS Label elements and precautionary statements

Pictogram:	Corrosion- Exclamation Mark
Signal word:	DANGER
Prevention	Keep only in original packaging. Absorb spillage to prevent material damage. Wash hands or other contact areas thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing fume/mist/ vapors/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response	IF SWALLOWED: Immediately call a POISON CENTER/doctor/ Seek immediate medical attention if you feel unwell. Rinse mouth. DO NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower). Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. Specific treatment: See Section 4: First Aid Measures. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
Storage	Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in corrosion resistant container or container with a resistant inner liner.
Disposal	Dispose of container or contents in accordance with all regulations.

Hazards not otherwise classified or not covered by GHS.

HMIS Rating: Health hazard: 2 Chronic Health Hazard: Flammability: 0
Physical Hazard 0
NFPA Rating: Health hazard: 2 Fire Hazard: 0 Reactivity Hazard: 0



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3. Composition / Information on Ingredients

Component	Cas	%Wt.
Sodium Metasilicate	6834-92-0	5-10
Sodium Tripoly Phosphate	7758-29-4	2-5
Potassium Hydroxide	1310-58-3	1-3
Terpineol	8002-09-3	1-3
Ethylene Glycol Monobutyl Ether	111-76-2	1-2

*This composition consists of a combination of ingredients. The ones potentially contributing to classified hazards are reported above. The above chemistries are provided for industrial hygiene and environmental purposes and are not intended to represent product specifications. Read and understand the entire SDS, as there is important information throughout the document.

4. First-Aid Measures

Description of first aid measures

<u>General advice:</u>	Move out of dangerous area. Consult a physician. Show this SDS to the doctor and first responders.
<u>In case of eye contact:</u>	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.
<u>In case of skin contact:</u>	Wash with plenty of water. Take off all contaminated clothing and shoes. Wash contaminated clothing before reuse. Decontaminate or discard shoes. Seek immediate medical attention if you feel unwell.
<u>If inhaled:</u>	Remove person to fresh air and keep comfortable for breathing. Contact a POISON CENTER/doctor/see immediate medical attention.
<u>If swallowed:</u>	Immediately call a POISON CENTER/doctor/ Seek immediate medical attention. Rinse mouth. Do not induce vomiting due to inhalation risk.

Most important symptoms and effects, both acute and delayed: See Sections 2 and 11.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.



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5. Fire-Fighting Measures

Extinguishing media:

Suitable Extinguishing Media: Use dry chemical, foam or water fog to extinguish.
Unsuitable Extinguishing Media: Do not use direct water stream to avoid spreading fire and splattering chemicals.

Special hazards arising from the substance or mixture: Wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. (MSHA/NIOSH approved or equivalent).

Protective equipment and precautions for firefighters: If employees are expected to fight fires, training and equipment information can be found in OSHA Fire Brigades Standard (29 CFR 1910.156).

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Avoid breathing fume/gas/mist/spray. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation.

Environmental precautions: Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Use noncombustible absorbents for small spills. Vacuum larger spills. Use suitable and properly labeled containers. Dispose of contents/container to an approved waste disposal plant. Never return spills to original containers for re-use.

Reference to other sections-resources: For additional information, refer to Section 8: Exposure Controls and Personal Protection, Section 7: Handling, Section 12: Ecological Information, Section 13: Disposal Considerations and OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120).

7. Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid inhalation of vapor, mist or spray. In case of inadequate ventilation wear respiratory protection. Remove product from tools and equipment before reuse. For precautions see Section 2. For protection see Section 8.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. This product was formulated to be used in low concentrations (aqueous solutions approximately 1-3% by volume) on ferrous metals (iron and steel), or aluminum and zinc. At these concentrations, it may darken or be corrosive to other non-ferrous metals. Undiluted or highly concentrated solutions may be corrosive to all non-ferrous metals depending on time, temperature and concentrations involved. Highly alkaline. Store away from acids. Avoid prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc, or other alkali sensitive metals with undiluted product or highly concentrated solutions.

Specific end use: See Section 1.



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8. Exposure Controls / Personal Protection

Control parameters: Guidelines may not apply to every situation. Industrial hygiene evaluations should be completed at each work place. Exposure limits are for air levels only. When skin contact also occurs, workers may be overexposed, even though air levels are less than the limits when provided.

Component Workplace Exposure Limits: Sodium Metasilicate (6834-92-0)- Sodium Tripoly Phosphate (7758-29-4);
Ethylene Glycol Monobutyl Ether (111-76-2): No OSHA – NIOSH – ACGIH exposure limits.

Exposure controls: Appropriate engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Facilities storing, packaging or utilizing product should be equipped with an eyewash and a safety shower facility. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment: Safety glasses and chemical resistant gloves are recommended whenever chemicals are handled. Obtain detailed information from OSHA Personal Protective Equipment Standard (29 CFR 1910.132) and equipment suppliers.

Eye/face protection: Face shield and, or safety glasses are recommended. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Wear protective gloves/protective clothing. Dispose of contaminated gloves after use in accordance with applicable regulations and good practices. Wash and dry hands. Wash contaminated clothing and decontaminate shoes before reuse. (Glove Material Options: Nitrile, neoprene or natural rubber.)

Respiratory protection: Use when overexposure potential. Improper use of respirators is dangerous. Respirators should only be used with a written program as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Control of environmental exposure: Avoid release to the environment. Collect spillage. Dispose of contents/container in accordance with regulations.

9. Physical and Chemical Properties

Form: Non-Viscous Liquid

Color: Green/Yellow

Odor: Pine

Boiling Point/Range: >212°F

Flash Point: Not Combustible

Auto Ignition Temp: N/A

Flammability Limit - LEL: N/A- **UEL:** N/A

Vapor Pressure: As Water

Vapor Density: As Water

Freezing Point/Melting Point: N/A

Solubility (Water): 100%

Specific Gravity: 1.11

Evaporation Rate: (Ethyl ether = 1): N/A

Viscosity: Non-viscous

pH: 13.0 (11.8 @1%)

Volatility (wt. %): 2



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10. Stability and Reactivity

Reactivity: Not reactive under normal conditions.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: This product was formulated to be used in low concentrations (aqueous solutions approximately 1-3% by volume) on ferrous metals (iron and steel), or aluminum and zinc. At these concentrations, it may darken or be corrosive to other non-ferrous metals. Undiluted or highly concentrated solutions may be corrosive to all non-ferrous metals depending on time, temperature and concentrations involved.

Hazardous decomposition products: None known.

Other decomposition products: May form toxic oxides of carbon under fire conditions.

11. Toxicological Information

Information on Toxicological Effects

Component toxicity: Sodium Metasilicate (6834-92-0): Acute toxicity: LD50 Oral- rat- male and female- 1,152- 1,349 mg/kg Remarks: Gastrointestinal: Ulceration or bleeding from stomach.

Ethylene Glycol Monobutyl Ether (111-76-2): Acute toxicity LD50 Oral- Rat- 470 mg/kg LC50 Inhalation- Rat- 4 h- 450 ppm.

Sodium Tripoly Phosphate (7758-29-4): No No data available.

Mixture toxicity: Inhalation – Dermal- Skin corrosion/irritation- Eye damage/eye irritation – Respiratory/skin sensitization- Germ cell mutagenicity – Reproductive toxicity- Specific target organ toxicity- single exposure- Specific target organ toxicity- repeated exposure- Aspiration hazard: All no data available- Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is classified as a carcinogen by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), or the Occupational Safety and Health Administration (OSHA).

Additional Information: None known.

12. Ecological Information

Ecotoxicity

Component ecotoxicity: Sodium Metasilicate (6834-92-0): Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish)- 210 mg/l- 96 h Toxicity to fish flow-through test LC50- Oncorhynchus mykiss (rainbow trout)- 0.94- 1.92 mg/l- 96.0 h mortality NOEC- Oncorhynchus mykiss (rainbow trout)- 0.54 mg/l- 96.0 h Toxicity to daphnia and other aquatic invertebrates EC50- Daphnia magna (Water flea)- 12.5 mg/l- 48 h Toxicity to algae NOEC- Desmodesmus subspicatus (green algae)- 100 mg/l- 72 h (OECD Test Guideline 201).

Ethylene Glycol Monobutyl Ether (111-76-2): Acute toxicity LD50 Oral- Rat- 470 mg/kg LC50 Inhalation- Rat- 4 h- 450 ppm.

Sodium tripolyphosphate (7758-29-4): Toxicity to daphnia and other aquatic invertebrates EC50- Daphnia magna (Water flea)- > 100 mg/l- 48 h

Mixture ecotoxicity: Toxicity to Fish- Persistence and Biodegradability- Bioaccumulative Potential- Mobility in Soil: No data available for mixture.

Other adverse effects: None known.



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13. Disposal Considerations

Waste treatment methods

Product: Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Chemical Family: Alkaline Cleaner

Proper Shipping Name: Corrosive Liquid n.o.s. (Contains Potassium Hydroxide, Disodium Trioxosilicate)

Hazard Classification: Corrosive Material

Packing Group: PG III

Chemical Formula: n.a. proprietary mixture

DOT Hazardous Substance? Yes

RQ: 1000 lbs.

UN NUMBER: UN1760

CAS Registry No: n.a. proprietary mixture

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through a shipper authorized sales or customer service representative.

15. Regulatory Information

Federal

TSCA (Toxic Substance Control Act): Components of this product are listed on the TSCA Inventory.

RCRA: (Resource Conservation/Recovery Act): Section 13. Disposal Considerations.

CERCLA: (Comprehensive Emergency Response Compensation, and Liability Act): Contains 2.6 % by weight of Potassium Hydroxide which is listed in table 302.4 of 40 CFR 302 as a hazardous substance and of which has a reportable quantity (RQ) of 1000 lbs. Releases to air, land or water which exceed RQ must be reported to the National Response Center, 800-424-8802.

SARA TITLE III: (Superfund Amendments and Reauthorization Act)

Section 301-303: None of the ingredients of this product are contained on SARA's Extremely Hazardous Substances List

Section 311/312 Hazards: Acute Health Hazard

Section 313 Components: Contains 1 % Ethylene Glycol Monobutyl Ether (Glycol Ether) which is listed and may require reporting under that statute.

States

State Right to Know Components: PA & NJ: Water (7732-18-5)- Sodium Metasilicate (6834-92-0)- Potassium hydroxide (1310-58-3)- Sodium Tripoly Phosphate (7758-29-4)- Ethylene Glycol Monobutyl Ether (111-76-2).

California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canada

DSL: This product, or its components, are listed on or are exempt from the Canadian Domestic Substances List (DSL).

WHMIS: Sodium Metasilicate: E - Corrosive Material (Necrosis of animal skin tissue.)- Disclosure at 1.0%.



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16. Other Information

Full alphanumeric H-Statements and P-Statements.

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
P234 Keep only in original packaging.
P260 Do not breathe dusts or mists.
P261: Avoid breathing mist/vapors/spray.
P264 Wash hands or other contact areas thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P312 IF SWALLOWED: Immediately call a POISON CENTER/doctor/ Seek immediate medical attention if you feel unwell. Rinse mouth. DO NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower).
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Immediately call a POISON CENTER/doctor/ Seek immediate medical attention if you feel unwell
P321 Specific treatment: See Section 4: First Aid Measures.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P406 Store in corrosion resistant container or container with a resistant inner liner.
P501 Dispose of container or contents in accordance with all regulations.

Disclaimer

Hazard ratings involve data and interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all information contained in this SDS must be considered. The information in this Safety Data Sheet was obtained from sources we believe reliable. However, the information is provided without any warranty, expressed or implied regarding to its correctness. The conditions or methods of handling, storage, and/or disposal of this product is 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 usage, storage or disposal of this product. See Section 2 for technical and for emergency contact information.