



SAFETY DATA SHEET - AF-310 Compound

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1. Identification

Product Name: AF-310 Cleaning and 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: 11/19/2024

2. Hazard(s) Identification

GHS Classification and Hazard Statements in accordance with 29 CFR 1910 (OSHA HCS)

Physical Hazard: Not Classified.
Health Hazards: Acute toxicity, Oral (Category 4), Harmful if swallowed.
Skin Corrosion/Irritation (Category 1), Causes severe skin burns and eye damage.
Eye Damager/Irritation (Category 1), Causes serious eye damage.
Environmental Hazards: Acute aquatic toxicity (Category 3), Harmful to aquatic life.

GHS Label elements and precautionary statements

Pictogram: Corrosion
Signal word: **DANGER**
Prevention Wash hands or other contact areas thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dusts or mists. Wash thoroughly after handling. Wear protective gloves or clothing. Wear eye protection/ face protection. Avoid release to the environment.
Response IF SWALLOWED: Immediately call a POISON CENTER/doctor/ Seek immediate medical attention if you feel unwell. Rinse mouth.
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 or doctor/ physician.
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 or doctor/ physician. Collect spillage.
Storage Store locked up.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards not otherwise classified not covered by GHS.

HMIS Rating: Health hazard: 3 Chronic Health Hazard: Flammability: 0
Physical Hazard 0
NFPA Rating: Health hazard: 3 Fire Hazard: 0 Reactivity Hazard: 0



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3. Composition / Information on Ingredients

Component	Cas	%Wt.
Potassium Hydroxide	1310-58-3	5-10
Tetra Potassium Pyrophosphate	7320-34-5	5-10
Sodium Nitrite	7632-00-0	2-5
Mixed C8 Amohocarboxylates	Mixture	1-5
Ethylene Glycol Monobutyl Ether	111-76-2	1-2
Mixed C8 Amphocarboxylates	Mixture	1-5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-Aid Measures

Description of first aid measures

<u>In case of eye contact:</u>	Remove contact lenses. Flush with water until all traces of material are gone. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
<u>In case of skin contact:</u>	Quickly remove contaminated clothing. Immediately wash contaminated skin with large amounts of soap and water. Remove contaminated clothing. Wash area of contact with soap and water. Wash clothing before reuse. Get medical attention if irritation occurs and persists.
<u>If inhaled:</u>	Get medical attention if breathing difficulty or discomfort persists.
<u>If swallowed:</u>	Do not induce vomiting because of danger of aspiration into lungs. If conscious, give a glass of water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, monitor for breathing difficulty. Get medical attention.

5. Fire-Fighting Measures

Flash point: n.a. Noncombustible. Aqueous based cleaner.

Suitable extinguishing media: Product does not burn. Use media appropriate to the surrounding fire. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special fire fighting procedures: Containers can build up pressure and may explode if exposed to heat (fire). Use water spray to cool fire exposed container surfaces and to protect personnel. Contact with certain metals (particularly magnesium, aluminum, and galvanized zinc can rapidly generate hydrogen, which is explosive. Thermal decomposition can produce carbon monoxide (highly toxic) and carbon dioxide (an asphyxiant at sufficient concentrations).

Advice for firefighters: As in any fire, fire-fighters should 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)

Further information: If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA Fire Brigades Standard (29 CFR 1910.156).



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6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains, waterways, sewers, basements or confined areas.

Methods and materials for containment and cleaning up: Cover liquid spill with sand, earth or other noncombustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers for disposal.

Reference to other sections and resources: For personal protection see section 8. For disposal see section 13. If employees are required to clean-up spills, they must be properly trained and equipped. The OSHA Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) may apply.

7. Handling and Storage

Precautions for safe handling: Prior to working with this product you should be trained on its proper handling and storage. Avoid contact with skin and eyes. Avoid inhalation of dust vapor or mist. Remove all traces of product and its residue before working on equipment. Maintenance personnel should wear protective equipment and clothing so as to prevent personal contact and should be informed regarding necessary precautions applicable to this product.

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.

Specific end use: Section 1

8. Exposure Controls / Personal Protection

Control parameters - Component mixture exposure limits

Potassium hydroxide (1310-58-3): NIOSH: The recommended airborne exposure limit (REL) is 2 mg/m³, which should not be exceeded at any time. ACGIH: The threshold limit value (TLV) is 2 mg/m³, which should not be exceeded at any time. The above exposure limits are for air levels only.

Ethylene Glycol Monobutyl Ether (111-76-2): OSHA: The legal airborne permissible exposure limit (PEL) is 50 ppm averaged over an 8-hour work shift. NIOSH: The recommended airborne exposure limit (REL) is 5 ppm averaged over a 10-hour work shift. ACGIH: The threshold limit value (TLV) is 20 ppm averaged over an 8-hour work shift.

Tetra Potassium pyrophosphate (7320-34-5): No occupational exposure limits have been established for Sodium nitrite and C8 Amphocarboxylates. This does not mean that this substance is not harmful. Safe work practices should always be followed.

Engineering Controls: Monitor airborne chemical concentrations. Use engineering controls if concentrations exceed recommended exposure levels. Where engineering controls are required refer to the OSHA standard for the chemical or mixture components. Before entering a confined space where product may be present, check to make sure that an explosive concentration does not exist.



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Personal Protective Equipment: The OSHA Personal Protective Equipment Standard (29 CFR 1910.132) requires employers to determine the appropriate personal protective equipment for each hazard and to train employees on how and when to use protective equipment. The following recommendations are only guidelines and may not apply to every situation.

Gloves and Clothing: Avoid skin contact with product. Wear personal protective equipment made from material which cannot be permeated or degraded by this substance. Safety equipment suppliers and manufacturers can provide recommendations on the most protective glove and clothing material. All protective clothing (suits, gloves, footwear, headgear) should be clean, available each day, and put on before work.

Eye Protection: Wear indirect-vent, impact and splash resistant goggles when working with liquids. Wear non-vented, impact resistant goggles when working with fumes, gases, or vapors. Wear a face shield along with goggles when working with corrosive, highly irritating or toxic substances. Do not wear contact lenses when working with this substance.

Respiratory Protection: Improper use of respirators is dangerous. Respirators should only be used if the employer has implemented a written program that takes into account workplace conditions, requirements for worker training, respirator fit testing, and medical exams, as described in the OSHA Respiratory Protection Standard (29 CFR 1910.134).

General Hygiene: Provide eye wash fountains and emergency showers. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Provide employees with hazard information and training.

Control of environmental exposure: Do not let product enter drains.

9. Physical and Chemical Properties

Form: Liquid

Color: Green

Odor: Mild

Boiling Point/Range: >212°F (100°C)

Volatiles by Weight: 0%

Specific Gravity: 1.15

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%

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

Viscosity: Non-viscous

pH: 12.3

Density: N/A



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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: Vapors may form explosive mixture with air.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Strong oxidizers.

Hazardous decomposition products: Does not decompose under normal conditions. During fire, thermal decomposition can produce carbon monoxide (highly toxic) and carbon dioxide (an asphyxiant at sufficient concentrations).

Other decomposition products: None known. In the event of fire: See Section 5

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Information on Toxicological Effects: Likely routes of exposure: Eyes – Skin

Component toxicity:

Potassium hydroxide (1310-58-3): Acute toxicity LD50 Oral- Rat- 333 mg/kg Inhalation: No data available Dermal: No data available No data available Skin corrosion/irritation Skin – Rabbit Result: Severe skin irritation- 24 h Serious eye damage/eye irritation Eyes – Rabbit Result: Corrosive to eyes Respiratory or skin sensitization: No data available Germ cell mutagenicity: No data available Carcinogenicity: None

Potassium pyrophosphate (7320-34-5): Acute toxicity Inhalation: Irritating to respiratory system. LD50 Dermal- rabbit- > 4,640 mg/kg Remarks: Prolonged skin contact may cause skin irritation and/or dermatitis. Serious eye damage/eye irritation Eyes – rabbit Result: Moderate eye irritation (OECD Test Guideline 405) Carcinogenicity: None

Sodium nitrite (7632-00-0): Acute toxicity LD50 Oral- Rat- 157.9 mg/kg LD50 Oral- Mouse- 175 mg/kg Remarks: Vascular: BP lowering not characterized in autonomic section. Vascular: Regional or general arteriolar or venous dilation. Inhalation: No data available Dermal: No data available No data available Skin corrosion/irritation Skin – Rabbit Result: No skin irritation- 48 h (OECD Test Guideline 404) Serious eye damage/eye irritation Eyes – Rabbit Result: Eye irritation- 24 h (OECD Test Guideline 405)

Ethylene Glycol Monobutyl Ether (111-76-2): Acute toxicity LD50 Oral- Rat- 470 mg/kg LC50 Inhalation- Rat- 4 h- 450 ppm Remarks: Behavioral: Ataxia. Nutritional and Gross Metabolic: Weight loss or decreased weight gain. Dermal: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) LD50 Intraperitoneal- Rat- 220 mg/kg LD50 Intravenous- Rat- 307 mg/kg Skin corrosion/irritation Skin – Rabbit Result: Open irritation test serious eye damage/eye irritation Eyes – Rabbit Result: Moderate eye irritation- 24 h Carcinogenicity –IARC: 3- Group 3: Not classifiable as to its carcinogenicity to humans (2-Butoxyethanol) NTP: No OSHA.

Alkylaryl polyether alcohol (68412-54-4): Acute toxicity LD50 Oral- Rat- 4,000 mg/kg

C8 Amphocarboxylates (Mixture): Acute toxicity Acute oral toxicity: LD50 —1.58g/kg (1979)

Skin corrosion/irritation: No information for this mixture.- **Inhalation:** No information for this mixture.- **Serious eye damage/eye irritation:** None expected.- **Respiratory or skin sensitization:** No data available.- **Germ cell mutagenicity:** No data available - **Reproductive toxicity:** No data available- **Specific target organ toxicity - single exposure:** No data available- Specific target organ toxicity- repeated exposure: No data available- **Aspiration hazard:** No data available.- **Carcinogenicity:** Product not 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).



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12. Ecological Information

Ecotoxicity

Potassium hydroxide (1310-58-3): Toxicity to fish LC50- *Gambusia affinis* (Mosquito fish)- 80 mg/l- 96 h.

Tetra Potassium pyrophosphate (7320-34-5): Toxicity no data available

Sodium nitrite (7632-00-0): 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): Toxicity to fish LC50- other fish- 220 mg/l- 96 h Toxicity to daphnia and other aquatic invertebrates EC50- *Daphnia magna* (Water flea)- 1,815 mg/l - 24 h

Alkylaryl polyether alcohol (68412-54-4): Toxicity to fish LC50- *Lepomis macrochirus* (Bluegill)- > 10 mg/l- 96

C8 Amphocarboxylates (Mixture): Not Determined

Persistence and Biodegradability: Not Determined

Bioaccumulative Potential: Not Determined

Mobility in Soil: Not Determined

13. Disposal Considerations

Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product. Triple rinse (or equivalent). Then offer for recycling/reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

US/RCRA: None of the ingredients are currently listed as a substance or a source waste under current RCRA regulations (40 CFR 261.31, 32 and 33). However, disposed of water solutions containing this material are the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous. Avoid repacking wet material in sealed containers. Dispose of waste material according to Local, State and Federal Environmental Regulations.



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14. Transport Information

Chemical Family: Alkaline Cleaner
DOT SHIPPING NAME: Corrosive Liquid, n.o.s.
DOT HAZARD CLASSIFICATION: Corrosive Material
DOT PACKAGING GROUP: PG III
CHEMICAL FORMULA: n.a. proprietary mixture
DOT HAZARDOUS SUBSTANCE? Yes
USA RQ: 1000 lbs.
UN NUMBER: UN1760
CAS REGISTRY #: n.a. proprietary mixture

15. Regulatory Information

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

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

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

CERCLA: (Comprehensive Emergency Response Compensation, and Liability Act): Contains 7% 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. Also contains less than 5% Sodium Nitrite which is listed in 302.4. 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)

311/312 Categories: Immediate (Acute) Health

313: Components listed in Section 313: Contains < 2% Ethylene Glycol Monobutyl Ether (Glycol Ether) which is listed and may require reporting under the statute.

302: Reportable component: Ethylene oxide CAS-No. 75-21-8

State Right to Know Components: MA, PA and NJ: 2-Butoxyethanol (111-76-2)- Sodium nitrite (7632-00-0)- Potassium hydroxide (1310-58-3)- Ethylene oxide CAS-No. 75-21-8 and 1,4-Dioxane 123-91-1 PA & NJ: Water (7732-18-5)- Tetrapotassium pyrophosphate (7320-34-5)

California Prop. 65 Components: WARNING! This product contains a chemical known to the State of California to cause cancer. Ethylene oxide CAS-No. 75-21-8 and 1,4-Dioxane 123-91-1

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. Ethylene oxide CAS-No. 75-21-8



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16. Other Information

MANUFACTURER DISCLAIMER

While RockRidge Abrasives believes the data set forth herein is accurate as of this date, RockRidge Abrasives makes no warranty of any kind, express or implied, with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for consideration, investigation and verification. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by purchase, resale, use or exposure to this product. Customers-users of this product must comply with all applicable health and safety laws, regulations, and orders including the OSHA Hazardous Communication Standard.