Safety Data Sheet

AMS-2001 CLEANER COMPOUND

Section 1 – Product and Company Information

Product Identifiers

Name	AMS-2001 Cleaner Compound
Number	AMS-2001
Brand	Jenfab Cleaning Solutions
Product Use	Formulated for industrial use only as a metal cleaner to remove grease, oil, and particulate from ferrous metals (iron & steel) and some non-ferrous metals (aluminum and zinc). To be used at low concentrations (1-4%) in conjunction with aqueous parts cleaning systems.

Supplier

Name	Jenfab Cleaning Solutions
Address	1435 N. Alliance Ave, Springfield, MO 65802 www.Jenfab.com
Telephone	(417) 866-8855 - (417) 866-8804 Fax
Prepared/Revised	August 26, 2022

Section 2 – Hazard Identification

Classification of the substance or mixture.



Physical Hazard	Corrosive to Metals, Not Classified.
Health Hazards	Acute toxicity, Oral (Category 5) H303 May be harmful if swallowed. Skin Corrosion / Irritation (Category 1), Causes severe skin burns and eye damage. Eye Damage / Irritation (Category 1), Causes serious eye damage.
Environmental Hazards	Not Classified

GHS Label elements and precautionary statements

Pictogram	Corrosion - Exclamation Mark
Signal Word	**DANGER**
Prevention	Do not breathe mists or sprays. Wash thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response	IF SWALLOWED: 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. Call a POISON CENTER/doctor/seek immediate medical attention if you feel unwell.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with applicable regulations.

Hazards not otherwise classified 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

Supplemental Information.

See Section 16 for alphanumeric H-Statements and P-Statements.

Section 3 – Composition/Information on Ingredients

Component	CAS	% Wt.
Water	7732-18-5	60-75
Potassium Silicate	1312-76-1	1-10
Tetra Potassium pyrophosphate	7320-34-5	1-5
Potassium Hydroxide	310-58-3	1-4
Mixed C8 Amphocarboxylates	Mixture	1-5
Anionic Surfactant	Mixture	1-3

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 product specifications.

Section 4 – First Aid Measures

Description of first aid measures

General advice: Move out of dangerous area. Consult a physician. Show this SDS to the doctor and first responders.

In case of eye contact: 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.

In case of skin contact: 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.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Contact a POISON CENTER/doctor/see immediate medical attention.

If swallowed: 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.

Section 5 – Firefighting 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: Use water spray to cool fire exposed container surfaces and to protect personnel. Thermal decomposition can produce chemical oxides, carbon monoxide and carbon dioxide (asphyxiates at sufficient concentrations).

Advice for firefighters: 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, training and equipment information can be found in OSHA Fire Brigades Standard (29 CFR 1910.156).

Section 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).

Section 7 – Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of dust for solids and vapor or mist for liquids. 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.

Section 8 – Exposure Control and 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
Potassium hydroxide (1310-58-3): ACGIH: The threshold limit value (TLV) is 2 mg/m3, which should not be exceeded at any time. 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.
Potassium Silicate (1312-76-1) - Tetra Potassium pyrophosphate (7320-34-5) - Potassium Hydroxide (310-58-3) - Mixed C8 Amphocarboxylates (Mixture) Anionic Surfactant (Mixture): 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. Guidelines may not apply to every situation. Obtain detailed information from OSHA Personal Protective Equipment Standard (29 CFR 1910.132) and equipment suppliers.
Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection: Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good practices. Wash and dry hands. (Glove Materials: 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
Do not let product enter drains. Discharge into the environment must be avoided

Section 9 – Physical and Chemical Properties

Information on basic physical and chemical properties
Physical State: Liquid
Color: Red, Non-Viscous
Odor: Mild
Odor Threshold: Not Determined
pH: 13.5 (11.6 @1%)
Melting Point/ Freezing Point: Not Determined
Boiling Point/Range: >212°F / Not Determined
Flash Point: Not Combustible
Evaporation Rate (Butyl Acetate = 1): Not Determined
Flammability (solid, gas): Not Determined
Flammable Limits: In Air Lower/Upper: Not Combustible
Vapor Pressure: As Water
Vapor Density (air = 1): As Water
Specific Gravity (H2O = 1): 1.15
Solubility in water (by weight): 100%
Partition coefficient, n-octanol/water (log Pow) Not Determined
Autoignition Temperature: Not Combustible
Decomposition Temperature: Not Determined
Viscosity: Not Determined
Other information Volatility (wt. %): 0%

Physical Data is typical values based on material tested, but may vary based on composition. Values should not be accepted as guaranteed for every lot or as specifications for this product.

Section 10 – Stability and Reactivity

Reactivity: Not reactive under normal conditions.
Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: When in contact with incompatible materials.
Conditions to avoid: This product was formulated to be used in low concentrations (approximately 1-3%) on ferrous metals and non-ferrous metals (aluminum, zinc, galvanized steel, aluminized steel, brass, tin, and their alloys). Higher concentrations may be corrosive to non-ferrous metals.
Incompatible materials: Contains highly alkaline ingredients including Potassium Hydroxide. Store away from acids.

Hazardous decomposition products: Does not decompose under normal conditions.
Other decomposition products: May form flammable and explosive Hydrogen gas when non-ferrous metals are left in contact with this product or its solutions. May form toxic oxides of carbon under fire conditions.

Section 11 – Toxicity Information

Information on Toxicological Effects
Component toxicity
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)
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.
Potassium Silicate (1312-76-1) - Mixed C8 Amphocarboxylates (Mixture) Anionic Surfactant (Mixture): 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.

Section 12 – Ecological Information

Ecotoxicity
Component ecotoxicity
Potassium hydroxide (1310-58-3): Toxicity to fish LC50 - Gambusia affinis (Mosquito fish) - 80 mg/l - 96 h.
Anionic Surfactant (Mixture): Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead minnow) - 29 mg/l – 96 h (OECD Test Guideline 203) Toxicity to daphnia and other aquatic invertebrates flow-through test EC50 - Daphnia dubia (water flea) - 5.55 mg/l - 48 h Toxicity to algae Growth inhibition LOEC - Pseudokirchneriella subcapitata - 2.68 mg/l - 6 d static test EC50 - Desmodesmus subspicatus (Scenedesmus subspicatus) - > 120 mg/l - 72 h
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)
Potassium Silicate (1312-76-1) - Mixed C8 Amphocarboxylates (Mixture) Anionic Surfactant (Mixture): No data availalable.
Mixture ecotoxicity
Toxicity to Fish - Persistence and Biodegradability - Bioaccumulative Potential - Mobility in Soil: No data available for mixture.
Other adverse effects
None known.

Section 13 – Disposal Consideration

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.

Section 14 – Transport Information

DOT: CHEMICAL FAMILY: Alkaline Cleaner - PROPER SHIPPING NAME: Corrosive Liquid n.o.s. (Contains Potassium Hydroxide) - D.O.T HAZARD CLASSIFICATION: Corrosive Material - PACKAGING GROUP: PG III - CHEMICAL FORMULA: n.a. proprietary mixture - DOT HAZARDOUS SUBSTANCE? Yes - USA 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 an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15 – Regulatory Information

Federal

TSCA: Components of this product are listed or exempt from the TSCA Inventory.

CERCLA: Contains 1.5 % 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.

RCRA: None of the ingredients are currently listed as a substance or a source waste under current RCRA regulations.

SARA TITLE III: (Superfund Amendments and Reauthorization Act)

Section302 Components: None are subject to the reporting requirements of Section 302.

Section 313 Components: Sodium nitrite (7632-00-0) is subject to the reporting levels established by Section 313.

Section 311/312 Hazards: Acute, Health – Chronic, Health

States

State Right to Know Components: MA, PA and NJ: Potassium Silicate (1312-76-1) - Tetra Potassium pyrophosphate (7320-34-5) - Potassium Hydroxide (310-58-3)

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: Potassium Hydroxide: E – Corrosive - Potassium Silicate (1312-76-1) - Tetra Potassium pyrophosphate (7320-34-5): Not controlled by WHMIS.

Section 16 – Other Information

Full alphanumeric H-Statements and P-Statements.

H303 May be harmful if swallowed
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
P260 Do not breathe mists or sprays.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331 IF SWALLOWED: 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.
P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment: See Section 4: First Aid Measures.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.\
P501 Dispose of contents/container in accordance with applicable regulations.

Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.