

SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product Identifier: FORCE 5-F
Product Use: Alkaline Cleaner

Product Code: 517

KW SOLUTIONS
 2524 ACME CT
 TURLOCK, CA 95380
 (209)632-6900

24 Hr. Emergency Tel.#: 800-424-9300

SECTION 2 - HAZARDS IDENTIFICATION

Classification of the Substance or Mixture:

- Skin Corrosion - Category 1
- Serious Eye Damage - Category 1
- Acute Toxicity - Oral Category 4
- Acute Toxicity - Dermal Category 5
- Corrosive to Metals - Category 1



Signal Word: DANGER

Hazard Statements:

- Causes severe skin burns and eye damage
- Causes serious eye damage
- Harmful if swallowed
- May be harmful in contact with skin
- May be corrosive to metals

Precautionary Statements:

Prevention

- Wash hands thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection.
- Keep only in original container.
- Do not eat, drink or smoke when using this product.

Response

- IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting.
- IF SWALLOWED:** Immediately call a POISON CENTER or doctor/physician.
- IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- IF ON SKIN:** Wash with soap and water.
- IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF exposed or you feel unwell: Call a POISON CENTER or doctor/physician
- Wash contaminated clothing before reuse.
- Absorb spillage to prevent material damage.
- Specific treatment (see section 4 First Aid).

Storage

- Store in a corrosive resistant container with a resistant inner liner.
- Store locked up.

Disposal

- Dispose of contents/container in accordance with local regulations.

Hazards not Otherwise Classified:

No other hazards classified.

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SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Synonym	CAS Number	Concentration
SODIUM HYDROXIDE	CAUSTIC SODA	1310-73-2	20-30%

SECTION 4 - FIRST-AID MEASURES

Inhalation: Get medical advice/attention if you feel unwell or are concerned.

Skin Contact: Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse skin with lukewarm, gently flowing water/shower with a flushing duration of 60 minutes. Immediately call POISON CENTER/doctor. Wash contaminated clothing before re-use.

Eye Contact: Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 60 minutes. Take care not to rinse contaminated water into the unaffected eye or into the face. Immediately call a POISON CENTER/doctor. Continue rinsing until medical aid is available.

Ingestion: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

Most Important Symptoms and Effects, both Acute and Delayed: Causes severe skin burns and eye damage, burning of the mouth, throat, and esophagus.

SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing Media: Material is not flammable. Use extinguisher media appropriate for material in surrounding fire.

Special hazards arising from the substance or mixture: Hot or molten material can react violently with water. Can react with certain metals, such as aluminum, to generate flammable Hydrogen gas.

Flammability classification (OSHA 29 CFR 1910.106) (Hazcom 2012): Non flammable

Hazardous Combustion Products: May cause fire and explosions when in contact with incompatible materials.

Special protective equipment and precautions for firefighters: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Methods and materials for containment and cleaning up: Contain and recover liquid when possible. Do not let product enter drains. Residues from spills can be diluted with water, neutralized with dilute acid and collected with dry earth, sand or other non-combustible material and disposed of in appropriate container.

Special spill response procedures: Collect spills in plastic containers only. Prevent from entering sewers, waterways, or low areas.

SECTION 7 - HANDLING AND STORAGE

Precautions for Safe Handling: Wear at least chemical resistant gloves and eye protection, face shield, and chemical resistant garments when handling, moving or using this product. Do not contaminate water, food, or feed by storage or disposal.

Conditions for Safe Storage: Keep product in tightly closed container when not in use. Do not drop, roll, or skid drum. Store in a cool, dry, well-ventilated area away from heat or open flame.

Incompatible Materials: Avoid strong oxidizing agents, soft metals, acids, and heat.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Identity	CAS Number	Type	Exposure Limit Values	Source
SODIUM HYDROXIDE	1310-73-2	PEL	2 mg/m3	OSHA
		REL	2 mg/m3	NIOSH
		TLV	2 mg/m3	ACGIH

Ventilation and engineering measures: Forced air, local exhaust, or open air is adequate.

Respiratory Protection: Not a respiratory irritant unless dealing with a mist form, then wear appropriate NIOSH respirator.

Skin Protection: Wear chemical resistant gloves and chemical resistant garments when handling, wash garments before re-use.

Eye/Face Protection: Wear safety glasses, goggles and/or face shield to prevent eye contact.

Other Protective Equipment: Eye wash facility and emergency shower should be in close proximity.

General Hygiene Conditions: Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industry hygiene and safety practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark red liquid.

Odor: Odorless.

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pH: >11.0

Melting/Freezing point: No information available.

Initial boiling point and boiling range: No information available.

Flammability (solid, gas): Non flammable.

Specific gravity: 1.32 g/mL

Solubility in Water: Complete

Decomposition temperature: No information available.

Viscosity: 20-35 cSt at 20°C / 68°F

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Reactive with oxidizing agents, reducing agents, metals, acids and alkalis.

Chemical Stability: Stable under normal conditions

Possibility of Hazardous Reactions: Reactive with oxidizing agents, reducing agents, metals, acids and alkalis.

Conditions to Avoid: Incompatible materials

Incompatible Materials: Contact with acids and organic halogen compounds, especially Trichloroethylene, may cause violent reactions.

Hazardous Decomposition Products: Sodium Oxide. Decomposition by reaction with certain metals releases flammable and explosive Hydrogen gas.

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry - inhalation: YES

Routes of entry - skin & eye: YES

Routes of entry - ingestion: YES

Routes of entry - skin absorption: NO

Potential Health Effects:

Signs and symptoms of short term (acute) exposure:

Inhalation: Severe irritant. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing, sore throat or runny nose. Severe pneumonitis may occur.

Ingestion: Corrosive! Swallowing causes severe burns of mouth, throat, and stomach. Severe scarring of tissue, corrosion, permanent tissue destruction and death may result. Symptoms may include severe pain, nausea, vomiting, diarrhea, shock, hemorrhaging and/or fall in blood pressure. Damage may appear days after exposure.

Skin: Corrosive! Contact with skin causes irritation or severe burns and scarring with greater exposures.

Eye: Corrosive! Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness.

Potential Chronic Health Effects:

Carcinogenicity: No components are listed as carcinogens by ACGIH, IARC, OSHA, or NTP.

Mutagenicity: Not known to have mutagenic effects in humans or animals.

Reproductive effects: No known reproductive effects in humans or animals.

Sensitization to material: Not a known sensitizer in humans or animals.

Specific target organ effects: No known specific target organ effects.

Toxicological data: The calculated ATE values for this mixture are:

ATE oral = 350 mg/kg

ATE dermal = 4739 mg/kg

ATE inhalation = No information available

SECTION 12 - ECOLOGICAL INFORMATION

Persistence and degradability: Expected to readily biodegrade.

Bioaccumulation potential: No further relevant information available.

Mobility in soil: During movement through soil some ion exchange will occur. Also, some of the Hydroxide may remain in the aqueous phase and will move downward through soil in the direction of groundwater flow.

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SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for disposal: Do not contaminate water, food, or feed by storage and/or disposal. When handling refer to protective measures listed in sections 7 and 8. Empty residue from containers, rinse container well.

Method of disposal: Dispose of in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

RCRA: Not a listed RCRA hazardous waste.

SECTION 14 - TRANSPORTATION INFORMATION

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

Please note the GHS and DOT Standards are NOT identical and therefore can have varying classifications

US 49 CFR/DOT/IATA/IMDG Information:

UN No.: 1760

UN Proper Shipping Name: Corrosive liquid, n.o.s. (Sodium Hydroxide)

Transportation hazard class(es): 8

Packing Group: III

Environmental hazards: Not a Marine Pollutant

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

TSCA information: Sodium hydroxide is listed on the inventory.

US CERCLA Reportable quantity (RQ): Sodium hydroxide has a RQ of 1000 pounds of pure chemical.

SARA Title III: Acute Health Hazard

SECTION 16 - OTHER INFORMATION

Legend:

SARA: The Superfund Amendments and Reauthorization Act

RCRA: Resource Conservation and Recovery Act

TSCA: Toxic Substances Control Act

CFR: Code of Federal Regulations

DOT: Department of Transportation

ATE: Acute Toxicity Estimate

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