

# SAFETY DATA SHEET

**SECTION 1 - IDENTIFICATION**

**Product Identifier:** FORCE 9

**Product Code:** 521

**Chemical Family:** Alkali Metal Hydroxide

**MERAS WATER SOLUTIONS**  
 4213 TECHNOLOGY DR SUITE A,  
 MODESTO, CA 95356  
 (866)899-9762

**24 Hr. Emergency Tel.#:** 800-262-8200

**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
- May be corrosive to metals
- Harmful if swallowed
- Causes serious eye damage

**Precautionary Statements:**

- Wear protective gloves/protective clothing/eye protection/face protection.
- IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- IF ON SKIN (or hair):** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician.

**SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS**

Ingredient	CAS Number	Concentration
SODIUM HYDROXIDE	1310-73-2	38-42%
POLYACRYLIC ACID	9003-04-7	0-2%

**SECTION 4 - FIRST-AID MEASURES**

- Inhalation:** Get medical advice/attention if you feel unwell.
- 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.
- Indication of any Immediate Medical Attention and Special Treatment Needed:** Treat symptomatically

**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

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**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.

### 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

**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:** Colorless clear liquid

**Odor:** Odorless

**pH:** 14

**Melting/Freezing point:** ~16°C / 60°F

**Initial boiling point and boiling range:** ~128°C / 262°F

**Flash point:** Not applicable

**Flammability (solid, gas):** Non flammable

**Lower flammable limit (% by vol.):** Not applicable

**Upper flammable limit (% by vol.):** Not applicable

**Vapor pressure (mm Hg):** No information available

**Vapor density (air=1):** No information available

**Specific gravity:** 1.34 g/mL

**Solubility in water:** Complete

**Auto ignition temperature:** No information available

**Decomposition temperature:** No information available

**Viscosity:** ~ 10.0 cP 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.

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### SECTION 11 - TOXICOLOGICAL INFORMATION

**Informaiton on likely routes of exposure:**

Routes of entry - inhalation: Yes

Routes of entry - skin & eye: Yes

Routes of entry - ingestion: Yes

**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 may cause severe burns of mouth, throat, and stomach. Severe scarring of tissue and death may result. Symptoms may include bleeding, vomiting, diarrhea, fall in blood pressure. Damage may appears days after exposure.

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

**Eye:** 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:** Prolonged contact with dilute solutions or dust has a destructive effect upon tissue.

**Mutagenicity:** Both the in vitro and the in vivo genetic toxicity test indicated no evidence for a mutagenic activity.

**Carcinogenicity:** Not considered to be carcinogenic by ACGIH and IARC

**Reproductive effects:** No information available

**Sensitization to material:** Not considered to be a skin sensitizer.

**Specific target organ effects:** No information available

**Medical conditions aggravated by overexposure:** No information available

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

ATE oral = 333 mg/kg (rat)

ATE dermal = 4545 mg/kg (rabbit)

ATE inhalation (vapors) = 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.

### 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 Standarts 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.,

Transportation hazard class(es): 8

Packing Group: III

**Environmental hazards:** Not a Marine Pollutant

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## SECTION 15 - REGULATORY INFORMATION

**US Federal Information:****US CERCLA reportable quantity (RQ):** 3333 lbs. (as-is material)**SARA Title III:** Acute Health Hazard

## SECTION 16 - OTHER INFORMATION

**Legend:****SARA:** The Superfund Amendments and Reauthorizatioin 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**Revision date:** 09/28/2020