



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Ver-tech Solutions & Service 6801 Bleck Drive Rockford, MN 55373 763-577-4050	Product Name: Metal Safe Product Code: VSS020 Recommended Use: Machine dishwashing detergent Revision Date: 5/19/2015
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Chemical Emergency: Infotrac: 1-800-535-5053

SECTION 2: HAZARDS IDENTIFICATION

GHS Hazard Classification

Skin Corrosion/Irritation	Category I
Serious Eye Damage/Eye Irritation	Category I
Specific Target Organ Toxicity (Single Exposure)	Category I
Corrosive to Metals	Category I

Signal Word

DANGER!



Hazard Statements

Causes severe skin burns and eye damage
 Causes serious eye damage
 Causes damage to organs
 May be corrosive to metals

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
 Wash thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not eat, drink or smoke when using this product
 Keep only in original container

Precautionary Statements - Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
 IF ON SKIN (or hair): Remove all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
 Absorb spillage to prevent material damage

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

SECTION 3: INFORMATION ON HAZARDOUS INGREDIENTS

Product is a mixture according to 29 CFR 1910.1200.

Hazardous Components

Hazardous Ingredients	Cas #	Weight %
Potassium hydroxide	1310-58-3	5 - 15%
Sodium silicate	1344-09-8	0 - 10%

Specific chemical identity and/or exact percentage of components has been withheld in accordance with a trade secret claim according to Appendix E 29 CFR 1910.1200.

SECTION 4: FIRST-AID MEASURES**First Aid Measures**

- General Advice:** Keep out of reach of children. Use with care.
- Eye Contact:** Immediately flush with cool running water for at least 15 minutes while holding eyelids apart. Do not rub affected area. Remove contact lenses if applicable.
- Skin Contact:** Wash off immediately with soap and water while removing all contaminated clothes and shoes.
- Ingestion:** If swallowed, call immediately for emergency medical assistance. DO NOT induce vomiting. Rinse mouth with water and drink 1-2 glasses of water. Never give anything by mouth to an unconscious person.
- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

Most Important Symptoms and Effects

- Symptoms:** Severe burns to eyes, skin, and respiratory tract.

Indication of any immediate medical attention and special treatment needed

- Note to Physician:** Product is a corrosive material. Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES**Flammable Properties**

- Flammability:** Not considered to be a fire hazard.
- Explosive Prop:** Not considered to be an explosion hazard.

Extinguishing Media

- Suitable:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable:** No information available.

Specific Hazards Arising from Chemical

- Hazards:** Thermal decomposition may lead to release of irritating and toxic vapors. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for fire-fighters

- Fire-Fight Method:** In the event of a fire, fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions:** Evacuate personnel to safe areas. Isolate hazard area and deny entry. Stay upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes or clothing.
- Environ. Precautions:** Prevent release to the environment if possible. Dike large spills to prevent material from entering streams or sewer systems.
- Clean-Up Method:** Soak-up with inert absorbent material and place into appropriate container for disposal. Clean contaminated area thoroughly with water. Prevent product from entering drains.

SECTION 7: HANDLING AND STORAGE

- Handling:** Use personal protective equipment when needed. Avoid contact with skin, eyes, and clothing. Wash hands before eating, drinking, or smoking. Remove contaminated clothes and wash before reuse. Use in a ventilated area.
- Storage:** Store in closed containers in cool, dry, well-ventilated area. Avoid overheating or freezing. Keep in properly labeled containers and out of reach of children.
- Incomp. Materials:** Strong acids and bases; oxidizing agents; aluminum, tin, zinc.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**Exposure Guidelines**

Hazardous Chemical	TLV - TWA	TLV - STEL
Potassium hydroxide	2 mg/m ³	No information available
Sodium silicate	No information available	No information available

Appropriate Engineering Controls

Eng. Controls: Ensure adequate ventilation, especially in confined areas.

Personal Protection Equipment (PPE)

Eyes: Recommend tight sealing safety goggles or face protection shield.

Respiratory: Not usually necessary where ventilation is sufficient to maintain vapors under the TLV limit.

Skin: Avoid skin contact. Recommend chemical resistant gloves.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State:	Liquid	Freezing Point:	Not determined
Appearance:	Pale red liquid	Boiling Point:	Not determined
Color:	Light red/pink	Evaporation Rate:	Not determined
Odor:	Pale red/pink	Vapor Pressure:	Not determined
Odor Threshold:	No information available	Vapor Density:	Not determined
pH:	12.0 - 13.0	Relative Density:	Not determined
Flash Point:	Not determined	Flammability:	Not determined
Water Solubility:	Soluble in water	Explosive Limits:	Not determined
Viscosity:	Not determined	Part. Coefficient:	Not determined
Specific Gravity:	1.15 - 1.16	Auto-ignition Temp:	Not determined
Melting Point:	Not determined	Decomp. Temp:	Not determined

SECTION 10: STABILITY AND REACTIVITY

Stability:	Stable under ordinary conditions of use and storage.
Haz. Decomposition:	Thermal decomposition can lead to release of irritating and toxic gases and vapors.
Haz. Polymerization:	No information available.
Incompatibilities:	Strong acids and bases; oxidizing agents; aluminum, tin, zinc.
Conditions to Avoid:	Heat, moisture and incompatibles.

SECTION 11: TOXICOLOGY INFORMATION**Component Information**

Hazardous Chemical	LD50 Oral	LD50 Dermal
Potassium hydroxide	214 mg/kg (rat)	No information available
Sodium silicate	1153 mg/kg (rat)	4640 mg/kg (rabbit)

Potential Health Effects

Exposure Routes: Eye Contact, Dermal Contact, Ingestion, Inhalation

Acute Toxicity:

Eyes: Causes eye irritation with tearing, redness, and impaired vision.

Skin: Causes skin irritation, redness, and itching. May cause chemical burns.

Ingestion: Harmful if swallowed.

Inhalation: Respiratory irritant.

Chronic Effects: Avoid repeated exposure. May aggravate pre-existing medical conditions including eye, skin and respiratory disorders.

SECTION 12: ECOLOGICAL INFORMATION**Ecotoxicity**

Hazardous Chemical	Toxicity to Fish	Toxicity to Invertebrates
Potassium hydroxide	80 mg/L: 96 h <i>Gambusia affinis</i>	No information available
Sodium silicate	301 - 478 mg/L: 96 h <i>Lepomis macrochirus</i>	216 mg/L: 96 h <i>Daphnia magna</i>

Environmental Toxicity

Biodegradation:	No information available.
Persistence:	No information available.
Bioaccumulation:	No information available.
Mobility:	No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Recover or recycle if possible. Disposal should be in compliance with applicable federal, state, and local regulations. Do not dispose of in the environment, in sewage, and/or in drains.

Container: Drain contaminated container thoroughly. Triple rinse containers.

SECTION 14: TRANSPORT INFORMATION

Transport in accordance with all federal, state, and local regulations.

DOT

Proper Name:	Corrosive Liquid, Basic, Inorganic, n.o.s. (Potassium Hydroxide)
Hazard Class:	8
UN Number:	UN3266
Packing Group:	II
Special Provisions:	Based on package size, product may be eligible for limited quantity exception.

SECTION 15: REGULATORY INFORMATION**US Federal Regulations**

TSCA Status: All components of this product are listed or exempt from listing on TSCA inventory.

CERCLA Reportable Quantity: Potassium Hydroxide: 1000 lbs.

Section 311/312 Hazard Category

Acute Health Hazard:	Yes
Chronic Health Hazard:	Yes
Fire Hazard:	No
Sudden Release of Pressure Hazard:	No
Reactive Hazard:	Yes

Section 313 Toxic Chemicals None

SECTION 16: OTHER INFORMATION

Prepared by: Health and Safety Department

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Revision Note: Updated raw material information

Version: II

Disclaimer: The information provided in this Safety Data Sheet has been obtained from sources believed to be reliable. This information is offered for your information, consideration, and investigation. Ver-tech Solutions & Service cannot anticipate all conditions under which this information and its product may be used. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. It is the user's responsibility to assume liability for loss, injury, damage or expense due to improper use.

End of Safety Data Sheet