

CULINARY CHEMICAL SOLUTIONS

SAFETY DATA SHEET

CCS- 109 Lo-Temp Detergent

Date: 09/19/2024

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Red Detergent Concentrated Machine Warewashing Liquid

Other Means of Identification

UN/ID No UN1760
Product Code -109

Recommended Use of the Chemical and Restrictions on Use

Recommended Use Machine dishwashing, injector fed systems only

Details of the Supplier of the Safety Data Sheet

Manufacturer Address Arrow Chemical Products, Inc.
5933 W. KL Ave.
Kalamazoo, MI 49009

Emergency Telephone Number

Company Phone Number 313-237-0277
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4
Skin Corrosion/Irritation	Category 1 Sub-category B
Serious Eye Damage/Eye Irritation	Category 1

Signal Word

DANGER

Hazard Statements

Harmful if swallowed
Causes severe skin burns and eye damage
May be corrosive to metals



Appearance: Red liquid

Physical State: Liquid

Odor: None

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection.
 Do not mix this product with any other product.
 Do not ingest.
 Do not breathe fume/mist/vapor/spray.
 Wash face, hands and any exposed skin thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Read entire label and safety data sheet before use.

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Thoroughly wash exposed area with water. Remove contaminated clothing. Get medical attention.
IF IN EYES: Immediately flush eyes with large quantities of water. Flush eyes for at least 15 minutes. Get immediate medical attention.
INHALATION: High concentrations may be irritating. If affected, immediately remove person to fresh air. Consult physician.
SWALLOWING: Do not induce vomiting. Drink 1-2 glasses of water and get immediate medical attention.

Precautionary Statements - Storage

Store locked up and in original container.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Potassium Hydroxide	1310-58-3	15 - 25
Sodium Tripolyphosphate	7758-29-4	0 - 10
Silicic Acid	1312-76-1	0 - 5

4. FIRST AID MEASURES

First Aid Measures

- Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
- Eye Contact** 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.
- Ingestion** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
- Skin Contact** Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Discard contaminated leather goods.

Most Important Symptoms and Effects, both Acute and Delayed

- Symptoms** Skin exposures: may cause redness, itching, irritation, swelling and/or burns. Eye exposures may cause damage to internal contents of the eye, permanent visual defects, and blindness and/or loss of the eye. Inhalation: exposure to airborne material may cause severe irritation to mucous membranes and upper respiratory tract. Swallowing: exposure by ingestion may cause severe and permanent damage.

Indication of any Immediate Medical Attention and Special Treatment Needed

- Note to Physicians** Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Extinguish all nearby sources of ignition since flammable hydrogen gas will be liberated from contact with some metals. May react violently with many organic chemicals, especially nitrocarbons and chlorocarbons. Potassium hydroxide reacts with zinc, aluminum, tin, and other active metals liberating flammable hydrogen gas.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Use personal protective equipment as required.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so. Absorb spill with inert material (e.g. dry sand or earth).

Methods for Cleaning Up Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Wear appropriate personal protective equipment.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions Store locked up and in original container away from heat and incompatible materials. Store in a cool, dry place.

Incompatible Materials Acids. Combustible material. Organic compounds such as leather and wool. Avoid prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m ³	(vacated) Ceiling: 2 mg/m ³	Ceiling: 2 mg/m ³

Appropriate Engineering Controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Eye wash & showers should be available.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection Chemical safety goggles/faceshield.

Skin and Body Protection Rubber gloves. Suitable protective clothing.

Respiratory Protection Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Liquid	Odor	Odorless
Appearance	Red/Pink liquid		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	13 - 14		
Melting Point/Freezing Point	Not applicable		
Boiling Point/Boiling Range	Not determined		
Flash Point	Not applicable		
Evaporation Rate	<1	(Water = 1)	
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Specific Gravity	1.18		
Water Solubility	Soluble in water		

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions. Reacts with acids, giving off heat.

Chemical Stability
Stable at normal temperatures and pressures.

Conditions to Avoid
Mixing with acids or incompatible materials may cause splattering and release of large amounts of heat. Will react with some metals forming flammable hydrogen gas. Carbon monoxide gas may form upon contact with reducing sugars, food and beverage products in enclosed spaces.

Incompatible Materials
Acids. Combustible material. Organic compounds such as leather and wool. Contact with metals may evolve flammable hydrogen gas.

Hazardous Decomposition Products
None known.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Ingestion Harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium hydroxide 1310-58-3	= 284 mg/kg (Rat)	-	-
D Sodium silicate 1344-09-8	= 3400 mg/kg (Rat)	> 5000 mg/kg	>2.06 g/m ³

Information on Physical, Chemical and Toxicological Effects

Symptoms of Exposure This material may cause severe burns and permanent damage to any tissue with which it comes into contact. Signs and symptoms vary, and are dependent on the route of exposure, and the duration of exposure. Aspirating this material may cause signs and symptoms that are similar to those experienced as a result of breathing or inhaling this material. Skin exposures may cause severe burns, blisters, tissue destruction, drying or defatting of the skin. Eye exposure may cause damage to the internal content of the eye, permanent visual defects, and blindness and/or loss of eye.

Carcinogenicity Not classified as a carcinogen per GHS criteria. Not classified by NTP, IARC or OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Potassium hydroxide 1310-58-3	EC50 (selenastrum capricornutum): 61 mg/l/96 hr.	LC50 (mosquito fish): 80mg/l/96 hr LC50 (fathead minnow): 179 mg/l/96 hr.		EC50 (daphnia magna): 60 mg/l/48 hr
D Sodium silicate 1344-09-8		Brachydanio rerio: LC50 1108 mg/l/96 hr.		Aquatic invertebrates: (daphnia magna) EC50 1700 mg/l/48 hr

Biodegradation:

This material will disassociate into ionic form in the aquatic environment. Natural carbon dioxide will slowly neutralize this material.

Bioaccumulation

This material will not bioconcentrate.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.
5 Gal Pails do not require label/placard for US Ground Transportation, exception § CFR 173.152 applies.

DOT
UN/ID No UN1760
Proper Shipping Name Corrosive liquid, n.o.s. (Potassium hydroxide)
Hazard Class 8
Packing Group II

IATA
UN/ID No UN1760
Proper Shipping Name Corrosive liquid, n.o.s. (Potassium hydroxide)
Hazard Class 8
Packing Group II

IMDG
UN/ID No UN1760
Proper Shipping Name Corrosive liquid, n.o.s. (Potassium hydroxide)
Hazard Class 8
Packing Group II

15. REGULATORY INFORMATION

International Inventories

TSCA Listed
DSL Listed

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*

US Federal Regulations

CERCLA Reportable Quantity

The following components are listed:

Chemical Name	CAS Number	CERCLA RQ
Potassium Hydroxide	1310-58-3	1000 lbs.

SARA 313 No ingredients of this product contain chemical (s) that are subject to reporting levels established by SARA Title III, Section 313.

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Potassium hydroxide 1310-58-3	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	2	0	1	Not Determined
<u>HMIS</u>	Health Hazards	Flammability	Reactivity	Personal Protection
	2	0	1	2B

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet