SAFETY DATA SHEET

Revision Date 23-September-2014 **Version** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name Foremost 1190 Ferro Kleen

UN/ID No UN3262
Product Code 1190

Recommended Use of the Chemical and Restrictions on Use
Recommended Use Metal Cleaner.

Details of the Supplier of the Safety Data Sheet
Supplier Address
Delta Foremost Chemical Corporation
3915 Air Park St.
Memphis, Tennessee 38118

Emergency Telephone Number
Company Phone Number (901) 363-4340
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Classification

Skin Corrosion/Irritation	Category 1 Sub-category B
Serious Eye Damage/Eye Irritation	Category 1

Signal Word
DANGER

Hazard Statements
Causes severe skin burns and eye damage

Appearance White granular solid **Physical State** Solid **Odor** Detergent

Precautionary Statements - Prevention
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
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 or doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately 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
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other Hazards
Harmful to aquatic life with long lasting effects
Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Sodium Hydroxide	1310-73-2	Proprietary
Sodium Metasilicate	6834-92-0	Proprietary
Sodium Carbonate	497-19-8	Proprietary

Product contains a proprietary mixture of ingredients.

4. FIRST AID MEASURES

First Aid Measures

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact Wash eyes immediately with large amount of water, lifting upper and lower lids occasionally. Get medical attention immediately.

Skin Contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If irritation persists, seek medical attention.

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Ingestion Do not induce vomiting. If person is conscious, give large quantities of water, milk, or an acidic beverage. Get medical attention immediately.

Most Important Symptoms and Effects, both Acute and Delayed

Symptoms EYES AND SKIN: Irritation to eyes, nose, and throat. Causes skin irritation and corrosive action upon body tissue.

INGESTION: Causes severe burns to mouth, throat, and stomach.

Indication of any Immediate Medical Attention and Special Treatment Needed

Note to Physicians Prolonged exposure will cause severe burns with scarring. Contact to eyes cause rapid tissue destruction leading to permanent eye damage and possible blindness.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Foam, carbon dioxide or dry chemical extinguisher.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
Product is not flammable.

UNUSUAL FIRE AND EXPLOSION HAZARD: Acid, flammable liquids, organic halogenated compounds and, contact with nitro compounds, may form shock sensitive salts.

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. Use air-supplied equipment for enclosed areas.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Wear protective clothing as described in Section 8 of this safety data sheet. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions See Section 12 for additional ecological information.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so. Contain with inert material.

Methods for Cleaning Up Sweep up and shovel into suitable containers for disposal. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. When dissolving in water, add product slowly to surface of water with constant stirring. Avoid violent spattering. Avoid breathing vapors or mists. Use personal protection recommended in Section 8. Wash face, hands, and any exposed skin thoroughly after handling. Avoid contact with skin, eyes or clothing. Use only with adequate ventilation.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Do not store or mix with strong oxidants.

Incompatible Materials Acids, Oxidizing materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium Hydroxide 1310-73-2	Ceiling: 2 mg/m^3	TWA: 2 mg/m^3 (vacated) Ceiling: 2 mg/m^3	IDLH: 10 mg/m^3 Ceiling: 2 mg/m^3

Appropriate Engineering Controls

Engineering Controls Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection Splash goggles or safety glasses.

Skin and Body Protection Wear rubber or neoprene gloves. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection Nuisance dust mask 3M type 8710 or equivalent.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	Solid / Powder		
Appearance	White granular	**Odor**	Detergent
Color	White	**Odor Threshold**	Not determined

Property	Values	Remarks • Method
pH	12.4 – 12.8	
Melting Point/Freezing Point	Not available	
Boiling Point/Boiling Range	Not determined	
Flash Point	None	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not available	
Lower Flammability Limit	Not available	
Vapor Pressure	Not available	
Vapor Density	Not available	
Specific Gravity	Not applicable	(1=Water)
Water Solubility	Soluble in water	
Solubility in Other Solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions. Acid, flammable liquids, organic halogenated compounds and, contact with nitro compounds, may form shock sensitive salts.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid
Contact with incompatible materials.

Incompatible Materials
Acids, Oxidizing materials.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation May cause irritation to the mucous membranes and upper respiratory tract.

Ingestion May cause burns to mouth and gastrointestinal corrosion.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Hydroxide 1310-73-2	-	= 1350 mg/kg (Rabbit)	-
Sodium Metasilicate 6834-92-0	= 1,152-1,349 mg/kg (Rat)	= Corrosive (Rabbit) 4 h	= Does not cause skin sensitization (Mouse) In vivo assay
Sodium Carbonate 497-19-8	= 4,090 mg/kg (Rat)	= Mild skin irritation (Rabbit) 24 h	= 5,750 mg/L (Rat) 2 h

Information on Physical, Chemical and Toxicological Effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical Measures of Toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium hydroxide 1310-73-2		45.4: 96 h Oncorhynchus mykiss mg/L LC50 static		
Sodium Metasilicate 6834-92-0		210: 96 h Zebra Fish mg/L LC50 semi-static		
Sodium Carbonate 497-19-8		300: 96 h Bluegill mg/L LC50 static	265: 48 h Water flea mg/L EC50 static	

Persistence and Degradability
Not determined

Bioaccumulation
Not determined

Mobility
Not determined

Other Adverse Effects
Not determined

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.

Chemical Name	California Hazardous Waste Status
Sodium hydroxide 1310-73-2	Toxic Corrosive

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT
UN/ID No UN3262
Proper Shipping Name Corrosive solid, basic, inorganic, n.o.s. (Sodium hydroxide)
Hazard Class 8
Packing Group II
Reportable Quantity (RQ) 5000 lbs

IATA
UN/ID No UN3262
Proper Shipping Name Corrosive solid, basic, inorganic, n.o.s. (Sodium hydroxide)
Hazard Class 8
Packing Group II

IMDG
UN/ID No UN3262
Proper Shipping Name Corrosive solid, basic, inorganic, n.o.s. (Sodium hydroxide)

Hazard Class	8
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

Not Determined

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

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sodium hydroxide 1310-73-2	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 311/312 Hazard Categories

Acute health hazard	Yes

SARA 313

Not determined

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide 1310-73-2	1000 lb			X

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sodium hydroxide 1310-73-2	X	X	X
Sodium Metasilicate 6834-92-0	X		X
Sodium Carbonate 497-19-8	X		X
Sodium Tripolyphosphate 7758-29-4	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	3	0	1	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	3	0	1	Not determined

Revision Date 23-September-2014
Revision Note New format

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