Material Safety Data Sheet: BLUE HEAT, MM

Supercedes Date 01/13/2011 **Issuing Date** 11/04/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name BLUE HEAT, MM
Recommended use Cleaning agent
Information on Manufacturer
CERTIFIED LABS, DIV. OF NCH CORP.
BOX 152170
IRVING, TEXAS 75015

Product Code 4312
Chemical nature Alkaline
Emergency Telephone Number
CHEMTREC® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview
DANGER
POISON
Corrosive
Causes skin and eye burns
May cause delayed lung injury and burns
Harmful or fatal if swallowed

Color Dark blue **Physical State** Liquid **Odor** Odorless

Potential Health Effects

Principle Route of Exposure	Skin contact, Eye contact, Inhalation.
Primary Routes of Entry	None known
Acute Effects	
Eyes	Corrosive to the eyes and may cause severe damage including blindness.
Skin	Causes skin burns.
Inhalation	Causes burns. Inhalation may be fatal or cause delayed lung injury.
Ingestion	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Chronic Toxicity	Inhaled corrosive substances can lead to a toxic edema of the lungs.
Target Organ Effects	Eyes, Respiratory system, Skin.
Aggravated Medical Conditions	Respiratory disorders, Skin disorders.
Potential Environmental Effects	See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Potassium hydroxide	1310-58-3
Sorbitol	50-70-4
Potassium polyacrylate	25608-12-2

4. FIRST AID MEASURES

General advice	Do not get in eyes, on skin or on clothing. Do not breathe vapors or mist.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.
Skin Contact	Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.
Inhalation	Move to fresh air. In case of shortness of breath, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Ingestion	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.
Notes to physician	The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed.

5. FIRE-FIGHTING MEASURES

Flash Point Does not flash **Method** Not applicable
Autoignition Temperature No information available.
Flammability Limits in Air % Hydrogen, by reaction with metals. **Upper** 75 **Lower** 4
Suitable Extinguishing Media
Water spray. Carbon dioxide (CO_2). Foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical
Contact with metals liberates flammable hydrogen gas. Material can create slippery conditions.
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.

NFPA	**Health** 3	**Flammability** 0	**Instability** 1
HMIS	**Health** 3	**Flammability** 0	**Instability** 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.
Environmental Precautions Do not flush into surface water or sanitary sewer system.
Methods for Containment Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13)
Methods for Cleaning Up Pick up and transfer to properly labeled containers
Neutralizing Agent Acetic acid, diluted.

7. HANDLING AND STORAGE

Handling Do not get in eyes, on skin or on clothing. Do not breathe mist.
Storage Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Metal containers must be lined. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.
Storage Temperature **Minimum** 68 °F / 20 °C **Maximum** 120 °F / 49 °C
Storage Conditions **Indoor** X **Outdoor** **Heated** **Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Potassium hydroxide	Ceiling: 2 mg/m^3	No data available	Ceiling: 2 mg/m^3
Sorbitol	No data available	No data available	No data available
Potassium polyacrylate	No data available	No data available	No data available

Engineering Measures Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Personal Protective Equipment
- **Eye/Face Protection** Tightly fitting safety goggles. Face-shield.
- **Skin Protection** Wear suitable protective clothing, Impervious gloves.
- **Respiratory Protection** In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Viscosity**	Viscous
Color	Dark blue	**Odor**	Odorless
Appearance	Transparent	**pH**	14
Specific Gravity	1.1	**Evaporation Rate**	0.64 (Butyl acetate=1)
Percent Volatile (Volume)	93.4	**VOC Content (%)**	0
VOC Content (g/L)	0	**Vapor Pressure**	15.36 mmHg @ 70°F
Vapor Density	0.7 (Air = 1.0)	**Solubility**	Completely soluble
Boiling Point/Range	190 °F / 88 °C		

10. STABILITY AND REACTIVITY

Chemical Stability Stable. Hazardous polymerization does not occur.
Conditions to Avoid None known
Incompatible Products Strong oxidizing agents, Reducing agents, Light and/or alkaline metals, Acids, Aldehydes, Highly halogenated compounds, Contact with metals liberates hydrogen gas.
Hazardous Decomposition Products Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides, Acrylate monomers, Hydrogen, by reaction with metals.
Possibility of Hazardous Reactions None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Potassium hydroxide	= 214 mg/kg (Rat)	no data available	no data available	no data available	no data available
Sorbitol	no data available	no data available	no data available	no data available	no data available
Potassium polyacrylate	no data available	no data available	no data available	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Potassium hydroxide	no data available	no data available	no data available	no data available	eyes, respiratory system, skin
Sorbitol	no data available	no data available	no data available	no data available	no data available
Potassium polyacrylate	no data available	no data available	no data available	no data available	no data available

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Potassium hydroxide	not applicable	not applicable	not applicable	not applicable	not applicable
Sorbitol	not applicable	not applicable	not applicable	not applicable	not applicable
Potassium polyacrylate	not applicable	not applicable	not applicable	not applicable	not applicable

12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Potassium hydroxide	no data available	LC50 = 80 mg/L Gambusia affinis 96 h	no data available	no data available	0.65 0.83
Sorbitol	no data available	no data available	no data available	no data available	N/A
Potassium polyacrylate	no data available	no data available	no data available	no data available	N/A

Persistence and Degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Potassium hydroxide, solution
Hazard Class 8
UN-No UN1814
Packing Group II
Reportable Quantity (RQ) Potassium hydroxide, RQ kg= 4,540
Description UN1814, Potassium hydroxide, solution, 8, PG II

TDG

Proper shipping name Potassium hydroxide, solution
Hazard Class 8
UN-No UN1814
Packing Group II
Description POTASSIUM HYDROXIDE, SOLUTION,8,UN1814,PG II

ICAO

UN-No UN1814
Proper Shipping Name Potassium hydroxide solution
Hazard Class 8
Packing Group II
Shipping Description Potassium hydroxide solution,8,UN1814,PG II

IATA

UN-No	UN1814
Proper Shipping Name	Potassium hydroxide, solution
Hazard Class	8
Packing Group	II
ERG Code	8L
Shipping Description	UN1814,Potassium hydroxide, solution,8,PG II

IMDG/IMO

Proper Shipping Name	Potassium hydroxide solution
Hazard Class	8
UN-No	UN1814
Packing Group	II
EmS No.	F-A, S-B
Shipping Description	UN1814, Potassium hydroxide solution,8,PG II

15. REGULATORY INFORMATION

Inventories

TSCA	Complies
DSL	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

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

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Potassium hydroxide	1000 lb	Not applicable
Sorbitol	Not applicable	Not applicable
Potassium polyacrylate	Not applicable	Not applicable

Canada

This product may not be commercially placed on the market in

WHMIS Hazard Class

Not applicable

16. OTHER INFORMATION

Prepared By	Devon Kebodeaux
Supercedes Date	01/13/2011
Issuing Date	11/04/2013
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

CERTIFIED LABS, DIV. OF NCH CORP. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage or disposal of the product. The information provided on this document 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.