



A UTC Fire & Security Company

MATERIAL SAFETY DATA SHEET

Karbaloy (Fire Extinguishing Agent)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Karbaloy (Fire Extinguishing Agent)
Other Trade Names Potassium Carbonate, Range Guard System Wet Chemical
Manufacturer/Supplier Badger Fire Protection
Address 4251 Seminole Trail
Charlottesville, VA 22911
USA
Phone Number (434)-973-4361
Chemtrec Number (800) 424-9300
(for emergencies only) (703) 527-3887 (International)
Revision Date:
MSDS Date: January 15, 2007
This MSDS has been compiled in accordance with - EC Directive 91/155/EC - OSHA's Hazcom Standard (29 CFR 1910.1200)

2. COMPOSITION/INFORMATION ON THE COMPONENTS

Component Name	CAS#/Codes	Concentration	R Phrases	EU Classification
Potassium Carbonate	548-08-7 EC#2095293	>40%	R36/37/38	Xn
Water	7732-18-5 EC#2317912	<60%	None	None

3. HAZARD IDENTIFICATION

EU Main Hazards

Irritating to eyes, respiratory system and skin.

Routes of Entry

- Eye contact - Inhalation - Skin contact

Carcinogenic Status

Not considered carcinogenic by NTP, IARC, and OSHA.

Target Organs

- Respiratory System - Skin - Eye

Health Effects - Eyes

Contact for short periods of time may cause irritation. Prolonged contact can cause severe irritation and eye damage.

Health Effects - Skin

Contact may cause mild irritation. Prolonged contact can cause chemical burns.

Health Effects - Ingestion

Ingestion may cause severe irritation, vomiting and chemical burns.

Health Effects - Inhalation

May cause irritation of the respiratory tract and coughing.



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4. FIRST AID MEASURES

Eyes

Immediately flood the eye with plenty of water or warm water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Wash affected area with soap and water. Obtain medical attention if irritation persists.

Ingestion

Dilute by drinking large quantities of water and obtain medical attention.

Inhalation

Move victim to fresh air. Obtain medical attention immediately for any breathing difficulty.

Advice to Physicians

Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media

This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a blaze. Use extinguishing agent appropriate to other materials involved. Keep all pressurized containers and jugs and surroundings cool with water spray as they may rupture or burst in the heat of a fire.

Unusual Fire and Explosion Hazards

Pressurized containers may explode in heat of fire.

Protective Equipment for Fire-Fighting

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Contain and absorb using appropriate inert material. Transfer into suitable containers for disposal. Prevent skin and eye contact. Wear appropriate protective equipment. Prevent the material from entering drains or watercourses.

7. HANDLING AND STORAGE

Pressurized containers and jugs should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll containers. Do not drop containers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the container. Store containers away from high heat sources. Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Occupational exposure limits are listed below, if they exist.

Potassium Carbonate

None established

Engineering Control Measures

Use with adequate ventilation. There should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes, use local exhaust ventilation.

Respiratory Protection

Not normally required.

Hand Protection

Use rubber gloves when handling the preparation.

Eye Protection

Chemical goggles or safety glasses with side shields.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Color	Clear
Odor	Odorless
pH	>11
Specific Gravity	~1.4
Boiling Range/Point (°C/F)	108.9°C/228°F
Flash Point (PMCC) (°C/F)	Not Flammable
Solubility in Water	Soluble
Vapor Density (Air = 1)	Not applicable
Vapor Pressure	Not applicable
Evaporation Rate	Not applicable

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to Avoid

- Heat - High temperatures - Exposure to direct sunlight

Materials to Avoid

- acids – ammonium compounds - metals



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10. STABILITY AND REACTIVITY

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

- oxides of carbon

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Low order of acute toxicity.

Potassium Carbonate: Oral LD50 (rat): 1870 mg/kg

Chronic Toxicity/Carcinogenicity

This product is not expected to cause long term adverse health effects.

Genotoxicity

This product is not expected to cause any mutagenic effects.

Reproductive/Developmental Toxicity

This product is not expected to cause adverse reproductive effects.

12. ECOLOGICAL INFORMATION

Mobility

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bio-accumulation

No relevant studies identified.

Ecotoxicity

No relevant studies identified.

13. DISPOSAL

Dispose of container in accordance with all applicable local and national regulations. Do not cut, puncture or weld on or near to the container. No harm to the environment is expected from this preparation.

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data	Not regulated
UN Proper Shipping Name	Not regulated
UN Class	None
UN Number	None
UN Packaging Group	None



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15. REGULATORY INFORMATION

EU Label Information

Classification and labelling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments.

EU Hazard Symbol and Indication of Danger.

Xi - Irritant

R phrases

R36/37/38 -Irritating to eyes, respiratory system and skin.

S phrases

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36 Wear suitable protective clothing.

US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS

TSCA Listing

This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Substance Inventory.

EINECS Listing

All ingredients in this product are listed on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.

DSL/NDSL (Canadian) Listing

All ingredients in this product are listed on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL) or are exempt from listing.

WHMIS Classification

D2B

This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

MA Right To Know Law

All components have been checked for inclusion on the Massachusetts Substance List (MSL). Those components present at or above the de minimus concentration include: none

PA Right To Know Law

This product contains the following chemicals found on the Pennsylvania Hazardous Substance List: - none

NJ Right To Know Law

This product contains the following chemicals found on the NJ Right To Know Hazardous Substance List: - none

California Proposition 65

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

SARA Title III Sect. 302 (EHS)

This product does not contain any chemicals subject to SARA Title III Section 302.

SARA Title III Sect. 304

This product does not contain any chemicals subject to SARA Title III Section 304.



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15. REGULATORY INFORMATION

SARA Title III Sect. 311/312 Categorization

- Immediate (Acute) Health Hazard

SARA Title III Sect. 313

This product does not contain any chemicals that are listed in Section 313 at or above de minimis concentrations.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Health - 2

NFPA Code for Flammability - 0

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards - None

HMIS Ratings

HMIS Code for Health - 2

HMIS Code for Flammability - 0

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

Abbreviations

N/A: Denotes no applicable information found or available

CAS#: Chemical Abstracts Service Number

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

R: Risk

S: Safety

Prepared By: EnviroNet LLC.

The information contained herein is based on data believed to be accurate. However, no representation, warranty, or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for its own particular use. Badger Fire Protection assumes no responsibility for personal injury or property damage resulting from use, handling or from contact with this product.