
1. IDENTIFICATION

Product Name	KnockDown® Class “A” Foam Concentrate
Recommended use of the chemical and restrictions on use	
Identified uses	Firefighting Foam Concentrate
Restrictions on Use	Consult applicable fire protection codes
Company Identification	National Foam 350 East Union Street West Chester, PA 19382
Customer Information Number	(610) 363-1400
Emergency Telephone Number	Infotrac at (800) 535-5053
Issue Date	December 8, 2016
Supersedes Date	April 18, 2016
<i>Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)</i>	

2. HAZARD IDENTIFICATION

Hazard Classification
Eye Damage/Irritation – Category 1

Label Elements
Hazard Symbols



Signal Word: Danger

Hazard Statements
Causes serious eye damage.

Precautionary Statements

Prevention

Wear eye protection and face protection.

Response

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.

Storage

None

Disposal

None

Other Hazards

None identified.

2. HAZARD IDENTIFICATION

Specific Concentration Limits

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity	10 - 20%
Acute dermal toxicity	20 - 30%
Acute inhalation toxicity	35 - 45%
Acute aquatic toxicity	25 - 35%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS Number	Concentration
Water	7732-18-5	55 - 65%
Surfactant	Proprietary	10 - 20%
Alkyl ether sulfate	Proprietary	5 - 15%
Dipropylene Glycol Monomethyl Ether	34590-94-8	1 - 5%

4. FIRST-AID MEASURES

Description of necessary first-aid measures**Eyes**

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

Skin

Wash skin thoroughly 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.

Most important symptoms/effects, acute and delayed

Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed**Notes to Physicians**

Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Suitable Extinguishing Media

This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a fire. Use extinguishing agent appropriate to other materials involved.

Specific hazards arising from the chemical

None known

5. FIRE - FIGHTING MEASURES

Special Protective Actions for Fire-Fighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing. Prevent skin and eye contact.

Environmental Precautions

Prevent large quantities of the material from entering drains or watercourses.

Methods and materials for containment and cleaning up

Contain and absorb using appropriate inert material and transfer into suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear appropriate protective clothing. Prevent skin and eye contact.

Conditions for safe storage

Store in original containers between 20°F and 120°F (-7°C and 49°C). Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Dipropylene Glycol Monomethyl Ether

ACGIH: TLV 100 ppm, 8hr; 15 min STEL 150 ppm; Skin Designation: air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.

OSHA Z-1 PEL: 100 ppm (600 mg/m³) Limit applies to skin.

Appropriate engineering controls

Use with adequate ventilation. If this product is used in a pressurized system, there should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes, use local exhaust ventilation.

Individual protection measures**Respiratory Protection**

Wear respiratory protection if there is a risk of exposure to high vapor concentrations, aerosols or if applied to hot surfaces. A NIOSH approved full face respirator may be worn. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Skin Protection

Gloves

Eye/Face Protection

Chemical goggles or safety glasses with side shields.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State	Liquid
Color	Pale green
Odor	Mild, pleasant
Odor Threshold	No data available
pH	9.0
Specific Gravity	1.05
Boiling Range/Point (°C/F)	No data available
Melting Point (°C/F)	No data available
Flash Point (°C/F)	>200°F
Vapor Pressure	No data available
Evaporation Rate (BuAc=1)	No data available
Solubility in Water	Soluble
Vapor Density (Air = 1)	Not applicable
VOC (%)	No data available
Partition coefficient (n-octanol/water)	No data available
Viscosity	No data available
Auto-ignition Temperature	Not applicable
Decomposition Temperature	No data available
Upper explosive limit	Not applicable
Lower explosive limit	Not applicable
Flammability (solid, gas)	Not applicable

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Contact with incompatible materials

Incompatible Materials

Water reactive materials – burning metals – electronically energized equipment

Hazardous Decomposition Products

Oxides of carbon – alkyl mercaptans – sulfides – sulfur oxides – sodium oxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

KnockDown® Concentrate

Oral LD50 (rat) >5000 mg/kg

Dermal LD50 (rabbit) >2000 mg/kg

11. TOXICOLOGICAL INFORMATION

Acute Toxicity, cont.

KnockDown® Mixed Fire Chemical

Oral LD50 (rat) >5000 mg/kg

Dermal LD50 (rabbit) >2000 mg/kg

Specific Target Organ Toxicity (STOT) – single exposure

Surfactant: May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) – repeat exposure

Available data indicates this product is not expected to cause target organ effects after repeated exposure.

Serious Eye damage/Irritation

KnockDown®

Primary Eye Irritation (rabbit, unwashed eyes): EPA Toxicity Category I - Corrosive

Primary Eye Irritation (rabbit, washed eyes): EPA Toxicity Category III - Moderately irritating

KnockDown® Mixed Fire Chemical

Primary Eye Irritation (rabbit, unwashed eyes): EPA Toxicity Category IV - Minimally irritating

Primary Eye Irritation (rabbit, washed eyes): EPA Toxicity Category IV - Practically non-irritating

Skin Corrosion/Irritation

KnockDown® Concentrate

Primary Dermal Irritation (rabbit): EPA Toxicity Category IV – Slightly Irritating

KnockDown® Mixed Fire Chemical

Primary Dermal Irritation (rabbit): EPA Toxicity Category IV – Non-irritating

Respiratory or Skin Sensitization

Available data indicates this product is not expected to cause skin sensitization.

Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity

No relevant studies identified.

Reproductive Toxicity

No relevant studies identified.

Aspiration Hazard

Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

KnockDown® Concentrate: LC50 Rainbow trout 28 mg/l 96h

Mobility in soil

No relevant studies identified.

Persistence/Degradability

KnockDown® Concentrate

BOD₅: 389,000 mg/kg

COD: 782,000 mg/kg

12. ECOLOGICAL INFORMATION

Persistence/Degradability, cont.KnockDown® - 0.5% SolutionBOD₅: 2,140 mg/kg

COD: 3,900 mg/kg

KnockDown® - 1% SolutionBOD₅: 4,220 mg/kg

COD: 7,960 mg/kg

This product meets the criteria for Readily Biodegradable when tested in accordance to EPA OPPTS 835-3110, Section 0, Ready Biodegradability (greater than 60% biodegradation in 28 days)

Bioaccumulative Potential

No relevant studies identified.

Other adverse effects

No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

This product, as sold, is not a RCRA-listed waste or hazardous waste as characterized by 40 CFR 261. However, state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Therefore, applicable local and state regulatory agencies should be contacted regarding disposal of waste foam concentrate or foam/foam solution.

Concentrate

Prevent foam concentrate from entering ground water, surface water or storm drains. Small quantities of foam concentrate may be collected on absorbents which can then be disposed of. Disposal should be made in accordance with local, state and federal regulations.

Foam/Foam Solution

Prevent foam/foam solution from entering ground water, surface water or storm drains. Small quantities of foam solution may be collected on absorbents which can then be disposed of. Disposal should be made in accordance with local, state and federal regulations.

NOTE: Please consult National Foam for additional information regarding the disposal of foam concentrates and foam solutions.

14. TRANSPORT INFORMATION

Shipping Information**Shipping Description****National Motor Freight Code**

Fire Extinguisher Charges or Compounds N.O.I., Class 70

69160 Sub 0

This information is not intended to convey all transportation classifications that may apply to this product. Classifications may vary by container volume and by regional regulations. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules when transporting this material.

15. REGULATORY INFORMATION

United States TSCA Inventory

All components of this product are in compliance with the inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

15. REGULATORY INFORMATION

Canada DSL Inventory

All ingredients in this product have been verified for inclusion on the Domestic Substance List (DSL).

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.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

None

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

Legend

ACGIH: American Conference of Governmental Industrial Hygienists

BOD₅: Biochemical Oxygen Demand (5 day)

CAS#: Chemical Abstracts Service Number

COD: Chemical Oxygen Demand

EC50: Effect Concentration 50%

IARC: International Agency for Research on Cancer

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

N/A: Denotes no applicable information found or available

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

RQ: Reportable Quantity

STEL: Short Term Exposure Limit

N/A: Denotes no applicable information found or available

OSHA: Occupational Safety and Health Administration

PEL: Permissible Exposure Limit

RQ: Reportable Quantity

STEL: Short Term Exposure Limit

TLV: Threshold Limit Value

TSCA: Toxic Substance Control Act

Revision Date: December 8, 2016

Replaces: April 18, 2016

Changes made: Update to Section 13.

Information Source and References

This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

Prepared By:

EnviroNet LLC.

16. OTHER INFORMATION

KnockDown is a trademark of Angus International.

The information and recommendations presented in this SDS are based on sources believed to be accurate. National Foam assumes no liability for the accuracy or completeness of this information. It is the user's responsibility to determine the suitability of the material for their particular purposes. In particular, we make **NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED**, with respect to such information, and we assume no liability resulting from its use. Users should ensure that any use or disposal of the material is in accordance with applicable Federal, State, and local laws and regulations.
