

May 8, 2007



MATERIAL SAFETY DATA SHEET

Affresh™ Washer Cleaner

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: Affresh™ Washer Cleaner

Company Identification

Milliken Chemical
P.O. Box 817
1440 Campton Road
Inman, SC 29349 USA
1-864-472-9041 (For questions and emergencies)
1-800-424-9300 or 1-703-527-3887 (CHEMTREC)

**PRODUCT USE:**

Cleaning agent.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

This product is expected to be a severe eye irritant and a mild skin irritant. Breathing powder / dust can cause nose and throat irritation. Conditions to avoid in storage include heat and exposure to moisture / humidity. Product will decompose when placed in water and/or in contact with moisture. Decomposition will release oxygen and possibly steam and/or heat.

HFRP Rating:

Health - 1
Flammability - 0
Reactivity - 1
Personal Protection Index - E

NFPA/HFRP Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or an internally derived Milliken system (for HFRP ratings).

EYE:

Affresh™ Washer Cleaner is expected to be a severe eye irritant. Exposure can cause watering and redness to the eyes. Severe exposure can cause chemical burns to the eye.

SKIN:

May cause slight irritation. Prolonged or repeated contact may irritate the skin and cause a skin rash (dermatitis).

INHALATION:

Dust may be slightly irritating to respiratory tract. Prolonged or excessive inhalation may cause coughing or sneezing. In case of repeated or prolonged exposure; risk of sore throat, nose bleeds, and chronic bronchitis.

INGESTION:

No known hazards when used according to container instructions. May be harmful if swallowed. Can cause severe irritation of the mouth, throat, esophagus, and stomach. Ingestion of large amounts may cause bloating of stomach, belching, nausea, and/or vomiting.



CARCINOGENICITY INFORMATION:

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

TARGET ORGAN:

Target Organs include: Eye. Skin. Respiratory system.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
SODIUM CARBONATE PEROXYHYDRATE	Confidential	15630-89-4
SODIUM CARBONATE	Confidential	497-19-8
BORIC ACID	Confidential	10043-35-3

As defined under Sara 311 and 312, this product contains materials that are acute hazards.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Immediately consult with an ophthalmologist in all cases of exposure.

SKIN CONTACT FIRST AID:

Remove contaminated clothing and shoes. Wash affected area with large amounts of soap and water. Use a moisturizing cream, if needed for dryness. Get medical attention if irritation develops or persists. Wash contaminated clothing before reuse.

INHALATION FIRST AID:

Avoid circumstances that produce respirable particles. If exposed to excessive levels of dust, remove to fresh air. Get medical attention if cough or other symptoms develop.

INGESTION FIRST AID:

DO NOT induce vomiting. If swallowed, immediately give 2 glasses of milk (preferred) or water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

NOTES TO PHYSICIAN:

Treatment should be directed at dilution and neutralization, administering to symptoms (if they occur), and providing supportive therapy.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

COC Flash Point: N/A

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

EXTINGUISHING MEDIA:

Use media appropriate for surrounding material.

FIRE & EXPLOSION HAZARDS:

Oxygen may be released on exothermic decomposition and may support surrounding fire. Pressure burst may occur due to decomposition in confined spaces / containers. Do not spray the product with water except in the case of fire. Wet product



decomposes exothermally and may cause combustion of organic materials.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Protect skin and eyes from exposure. If excessive dust is created, wear dust mask or respirator to keep exposure below the Permissible Exposure Level for particulate matter.

SPILL PROCEDURE:

Do not return spilled or contaminated material back to the original container. Collect the product with suitable means, shovel, or sweep avoiding dust formation. All receiving equipment should be clean, dry, and vented. All waste materials should be packaged, labeled, and transported in accordance with all national, state/provincial, and local requirements.

7. HANDLING AND STORAGE

HANDLING (PERSONNEL):

Do not handle in a manner that creates excessive dust. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

HANDLING (PHYSICAL ASPECTS):

Follow good housekeeping and hygiene practices to help prevent accidental exposure or ingestion. Keep container closed to avoid contamination.

STORAGE PRECAUTIONS:

Store in a dry area. Store away from heat sources. Store at temperatures less than 40 C (104 F).

SPECIAL SENSITIVITY:

Large quantities should be stored in vented containers. Avoid contact with water of humidity. Blending / filling operations should clean and dry process piping and equipment before packaging this product.

MISCELLANEOUS:

Compatible materials used include stainless steel, PE, paper and PE, glass, passivated aluminum, and plastic. If storing in plastic bottles, the closures should include a vented insert.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Facilities storing or using this material should be equipped with an eye wash and safety shower. Use only with adequate ventilation. Packaging / blending operations should consult with your industrial hygienist or safety manager for the selection of personal protective equipment suitable for the working conditions.

EYE / FACE PROTECTION REQUIREMENTS:

Dust proof goggles are recommended for industrial operations.

SKIN PROTECTION REQUIREMENTS:

For brief contact, normal work attire should be sufficient. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation. If required, protective gloves should be made of PVC, neoprene or rubber.

RESPIRATORY PROTECTION REQUIREMENTS:

Under normal use conditions, with adequate ventilation, no special respiratory protective equipment is required. If airborne concentrations exceed the OSHA exposure limit for dust, a NIOSH approved dust respirator is recommended.

EXPOSURE GUIDELINES:

Particulates not otherwise regulated



Recommended Exposure Limit: 5 mg/m³
OSHA TWA: 15 mg/m³
ACGIH TWA: 10 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Solid
COLOR:	White
SOLUBILITY IN WATER:	~ 140 gm / liter @ 24 C (75 F)
BULK DENSITY:	1.6 gm/cm ³
MELTING/FREEZING POINT:	Not applicable
PH:	10.5 - 10.7 (1% solution in water)
VISCOSITY:	Not applicable.
OCTANOL / WATER PARTITION COEFFICIENT:	Not applicable.
VOLATILE ORGANIC COMPOUNDS (VOC):	< 1% by weight
OXIDIZING PROPERTIES:	Weak Oxidizer

10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal conditions with slow gas release.

Conditions to avoid in storage include: Heat. Sources of heat. Exposure to moisture / humidity.

POLYMERIZATION:

Hazardous polymerization will not occur.

INCOMPATIBILITY WITH OTHER MATERIALS:

Materials and substances to avoid include: Water. Acids. Bases. Salts of metals. Reducing agents. Organic materials. Flammable substances.

DECOMPOSITION:

Self accelerated decomposition temperature (SADT) is > 50 C. Product will decompose when placed in water and/or in contact with moisture. Decomposition will release oxygen, steam and heat.

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL TESTING:

The hazard evaluation is based on data on the components.

Based on testing of a similar material, the 1-hour inhalation LC50 in rats is expected to be: > 4500 mg/m³.

The acute oral toxicity (LD50) in rats for this material is expected to be >1000 mg/kg.

The acute dermal toxicity (LD50) in rabbits for this material is expected to be > 2000 mg/Kgm.

The product is expected to be an eye irritant and a slight skin irritant in animals.

12. ECOLOGICAL INFORMATION

ECOLOGICAL TESTING:

This material readily decomposes when dissolved in water. The decomposition products are less toxic to fish than the product itself.



Affresh™ Washer Cleaner, as formulated, may be defined as potentially toxic to aquatic organisms; however, hazard for the environment is limited due to: No bioaccumulation. Considerable abiotic and biotic degradability. Low toxicity of degradation products (water and oxygen).

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Avoid washing significant amounts of material into sewer systems without proper treatment and authorization by the treatment facility management. Do not return spilled or contaminated material back to the original container. Collect the product with suitable means, shovel, or sweep avoiding dust formation. All receiving equipment should be clean, dry, and vented. All waste materials should be packaged, labeled, and transported in accordance with all national, state/provincial, and local requirements.

14. TRANSPORT INFORMATION

PRODUCT LABEL:	Affresh™ Washer Cleaner
D.O.T. SHIPPING NAME:	NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR
D.O.T. HAZARD CLASS:	Non-Hazardous

15. REGULATORY INFORMATION

CHEMICAL INVENTORY INFORMATION:

This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA). This material or all of its components are listed on the Canadian Domestic Substances List (DSL). This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS).

NJ Right to Know List

Sodium Carbonate Peroxyhydrate (15630-89-4)

16. OTHER INFORMATION

PREPARED BY:	Bob Schuette
APPROVED BY:	Bob Schuette
TITLE:	Development Associate
APPROVAL DATE:	April 25, 2007
SUPERCEDES DATE:	April 12, 2007

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END OF MSDS

