

MATERIAL SAFETY DATA SHEET

Ashland

Page 001
 Date Prepared: 08/18/04
 Date Printed: 10/29/04
 MSDS No: 306.0394364-001.006

*Please replace Current
 Ferroclean in MSDS
 Binder
 dated
 3/4/02*

FERROCLEAN PLUS CLEANER

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: FERROCLEAN PLUS CLEANER
 Product Code:
 General or Generic ID: CLEANER

Company

Ashland
 Ashland Distribution Co. &
 Ashland Specialty Chemical Co.
 P. O. Box 2219
 Columbus, OH 43216
 614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)
 24 hours everyday

Regulatory Information Number:
 1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
ORGANIC SALT		24.0- 34.0
ORGANIC ACID		1.5- 12.0
DIPROPYLENE GLYCOL MONOMETHYL ETHER	34590-94-8	1.0- 8.0
CHELATING AGENT		1.0- 7.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin

Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), narcosis (dazed or sluggish feeling).

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Target Organ Effects

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects

Developmental Information

This material (or a component) has been shown to cause birth defects in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Cancer Information

There is no information available. The chance of this material causing cancer is unknown. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions).

5. FIRE FIGHTING MEASURES

Flash Point

Not applicable

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Explosive Limit

No data

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, nitrogen oxides, sodium oxide.

Fire and Explosion Hazards

No data

Extinguishing Media

regular foam, alcohol foam, water fog, carbon dioxide, dry chemical.

Fire Fighting Instructions

Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 1, Flammability - 1, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Absorb liquid on vermiculite, floor absorbent or other absorbent material. Scoop or scrape up. Put in container for recovery or disposal.

Large Spill

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Combination of nitrites or oxides of nitrogen with secondary or tertiary amines can form nitrosamines which are potential carcinogens.

Storage

Store in closed containers in a dry, well-ventilated area. Keep from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

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Skin Protection

Wear resistant gloves such as: polyvinyl chloride, butyl rubber, To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections

Exposures in the workplace should be monitored if worker exposure to vapor or mists exceeds the PEL or TLV. Only a NIOSH/MSHA approved respirator and cartridge (TC-23C) is to be used. Monitoring results must be used to assess the proper level of respiratory protection necessary (such as: full face piece respirator with chemical cartridges or self-contained breathing apparatus {scuba}, etc.). Proper engineering and/or administrative controls should be used to reduce worker exposure. The facility's respiratory program must meet the requirements established in 29 CFR 1910.134, which includes a program for medical evaluation.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).

Exposure Guidelines

Component

ORGANIC SALT

No exposure limits established

ORGANIC ACID

No exposure limits established

DIPROPYLENE GLYCOL MONOMETHYL ETHER (34590-94-8)

OSHA VPEL 100.000 ppm - TWA (Skin)

OSHA VPEL 150.000 ppm - STEL (Skin)

ACGIH TLV 100.000 ppm - TWA (Skin)

ACGIH TLV 150.000 ppm - STEL (Skin)

CHELATING AGENT

No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for component) 212.0 F (100.0 C) @ mmHg

Vapor Pressure

(for component) 17.500 mmHg @ F

Specific Vapor Density

No data

Specific Gravity

1.140 @ 77.00 F

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Liquid Density

9.490 lbs/gal @ 77.00 F
1.140 kg/l @ 25.00 C

Percent Volatiles

55.0 - 60.0 %

Evaporation Rate

No data

Appearance

CLEAR TO SLIGHTLY HAZY

State

LIQUID

Physical Form

HOMOGENEOUS SOLUTION

Color

COLORLESS TO LIGHT YELLOW

Odor

No data

pH

5.0

Freezing Point

18.0 F (-7.7 C)

Solubility in Water

COMPLETE

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, nitrogen oxides, sodium oxide.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: strong acids, strong alkalis, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

This mixture has not been specifically tested.

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LD 50 and LC 50 Data

DIPROPYLENE GLYCOL METHYL ETHER (CAS# 34590-94-8)

Oral LD50 (rat): 5135 mg/kg

Dermal LD50 (rabbit): 9500 mg/kg

Inhalation LC50: Not available

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

96 hour LC50 rainbow trout (static conditions): 3420 mg/l

96 hour LC50 fathead minnow (static conditions): 3080 mg/l

48 hour EC50 Ceriodaphnia dubia (static conditions): 2680 mg/l

48 hour LC50 Ceriodaphnia dubia (static conditions): 2770 mg/l

Chemical Fate Information

BOD5: 68,900 mg/l

COD: 603,916 mg/l

13. DISPOSAL CONSIDERATION

Waste Management Information

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

NON-REGULATED BY D.O.T.

Container/Mode:

55 GAL DRUM/TRUCK PACKAGE

NOS Component:

None

RQ (Reportable Quantity) - 49 CFR 172.101

Not applicable

Other Transportation Information

The Transport Information may vary with the container and mode of shipment.

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

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CERCLA RQ - 40 CFR 302.4(a)

None

CERCLA RQ - 40 CFR 302.4(b)

Materials without a "listed" RQ may be reportable as an "unlisted hazardous substance". See 40 CFR 302.5 (b).

SARA 302 Components - 40 CFR 355 Appendix A

None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed() Fire() Reactive() Sudden Release of Pressure()

SARA 313 Components - 40 CFR 372.65

None

OSHA Process Safety Management 29 CFR 1910

None listed

EPA Accidental Release Prevention 40 CFR 68

None listed

International Regulations

Inventory Status

DSL (CANADA) The intentional ingredients of this product are listed.

State and Local Regulations

California Proposition 65

None

THIS PRODUCT IS NOT FOR USE OR SHIPMENT INTO CALIFORNIA.

New Jersey RTK Label Information

DIPROPYLENE GLYCOL MONOMETHYL ETHER 34590-94-8

Pennsylvania RTK Label Information

PROPANOL, (2-METHOXYMETHYLETHOXY)- 34590-94-8

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

