

# MATERIAL SAFETY DATA SHEET

HRS™



MSDS Ref. No.: F18-34-8  
Date Approved: 11/10/2006  
Revision No.: 9

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This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the Canada's Workplace Hazardous Materials Information System (WHMIS) and, the EC Directive, 2001/58/EC.

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** HRS™

**GENERAL USE:** Foaming agent, Surfactant

### MANUFACTURER

FMC CORPORATION  
FMC Peroxygens  
1735 Market Street  
Philadelphia, PA 19103  
(215) 299-6000 (General Information)

### EMERGENCY TELEPHONE NUMBERS

(303) 595-9048 (Medical - U.S. - Call Collect)  
For leak, fire, spill, or accident emergencies, call:  
(800) 424-9300 (CHEMTREC - U.S.A. & Canada)

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## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW:

- Colorless to opaque liquid.
- Slight fire hazard when exposed to high temperatures or flames.
- No flash point observed up to 104°C (220°F).

**POTENTIAL HEALTH EFFECTS:** Based on the ingredients, this product may be irritating to skin and eyes. Prolonged skin contact may cause dermatitis. Inhalation of vapors or mist may be irritating to the respiratory system.

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt.%	EC No.	EC Class
Trade Secret			None	Not classified
Water	7732-18-5	>70	231-791-2	Not classified

**COMMENTS:** FMC is withholding the specific chemical identity under provision of the OSHA Hazard Communication Rule Trade Secrets (1910.1200(1)). The specific chemical identity will be made available to health professionals in accordance with 29 CFR 1910.1200 (1) (2) (3) (4). This Material Safety Data Sheet provides information for employee training and hazard identification.

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### 4. FIRST AID MEASURES

**EYES:** Flush with water for at least 15 minutes. If irritation occurs and persists, contact a medical doctor.

**SKIN:** Wash with plenty of water. Get medical attention if irritation occurs and persists.

**INGESTION:** Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Contact a medical doctor.

**INHALATION:** Remove to fresh air. If breathing difficulty or discomfort occurs and persists, contact a medical doctor.

**NOTES TO MEDICAL DOCTOR:** Based on the ingredients, this product may be irritating to skin and eyes. Inhalation of vapors or mist may be irritating to the respiratory system. Treatment is controlled removal of exposure followed by symptomatic and supportive care.

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### 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Dry chemical, alcohol foams, CO<sub>2</sub> or water spray.

**FIRE / EXPLOSION HAZARDS:** Slight fire hazard when exposed to high temperatures or flames.

**FIRE FIGHTING PROCEDURES:** In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Use flooding quantities of water or chemical type extinguishers.

**FLAMMABLE LIMITS:** Not available

**SENSITIVITY TO IMPACT:** No data available

**SENSITIVITY TO STATIC DISCHARGE:** No data available

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## 6. ACCIDENTAL RELEASE MEASURES

**RELEASE NOTES:** Isolate spill or leak area, contain / recover as much of material as possible. Ventilate area before entering. Wear appropriate protective equipment. Spilled material can be absorbed with sand, earth or other inert / non-combustible material. Prevent entry into storm or sanitary sewer systems.

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## 7. HANDLING AND STORAGE

**HANDLING:** Follow good industrial hygiene procedures when handling material. Empty drum as thoroughly as possible.

**STORAGE:** Keep in tightly closed container, store at temperatures above 70°F (21.1°C) to avoid solidification. Avoid freezing and temperatures above 120°F (50°C).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** If generation of aerosols is expected, provide mechanical local exhaust ventilation to minimize employee exposure.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Use cup type chemical goggles; full-face shield may be used. Maintain eye wash fountain and quick-drench facilities in work area.

**RESPIRATORY:** For emergencies or instances where the exposure levels are not known, use a full-face positive pressure, air supplied or organic vapor respirator (U.S. NIOSH/MSHA approved).

**PROTECTIVE CLOTHING:** Wear suitable protective clothing, such as impervious gloves, lab coat, apron or coveralls, as appropriate to protect skin.

**GLOVES:** Use impervious gloves to protect against skin contact. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>ODOR:</b>	Essentially odorless
<b>APPEARANCE:</b>	Colorless to opaque liquid
<b>BOILING POINT:</b>	Not available
<b>COEFFICIENT OF OIL / WATER:</b>	Not available
<b>DENSITY / WEIGHT PER VOLUME:</b>	8.92 lbs./gallon
<b>EVAPORATION RATE:</b>	Not available
<b>FLASH POINT:</b>	No flash point observed up to 104°C (220°F)
<b>MELTING POINT:</b>	Approximately 70°F (21.1°C)
<b>ODOR THRESHOLD:</b>	Not available
<b>OXIDIZING PROPERTIES:</b>	Not available
<b>PERCENT VOLATILE:</b>	Not available
<b>pH:</b>	Approximately 8
<b>SOLUBILITY IN WATER:</b>	Soluble
<b>SPECIFIC GRAVITY:</b>	Not available
<b>VAPOR PRESSURE:</b>	Not available
<b>VISCOSITY:</b>	1,800 - 2,200 cP @ 25 °C

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## 10. STABILITY AND REACTIVITY

<b>CONDITIONS TO AVOID:</b>	Temperatures below 70°F (21.1°C) to avoid solidification.
<b>STABILITY:</b>	Stable under ordinary use and storage.
<b>POLYMERIZATION:</b>	Will not occur
<b>INCOMPATIBLE MATERIALS:</b>	Compatible with VigorOx peracetic acid, may be incompatible with other oxidizing agents, acids or strong bases.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Under fire conditions could form oxides of sulfur, carbon dioxide, carbon monoxide and irritating fumes.

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## 11. TOXICOLOGICAL INFORMATION

**EYE EFFECTS:** No data available for the product.

**SKIN EFFECTS:** No data available for the product.

**DERMAL LD<sub>50</sub>:** No data available for the product.

**ORAL LD<sub>50</sub>:** No data available for the product.

**INHALATION LC<sub>50</sub>:** No data available for the product.

**ACUTE EFFECTS FROM OVEREXPOSURE:** No data available for the product. Based on the ingredients, this product may be irritating to skin and eyes. Inhalation of vapors or mist may be irritating to the respiratory system.

**CHRONIC EFFECTS FROM OVEREXPOSURE:** No data available for the product. Based on the ingredients, prolonged skin contact may cause dermatitis. Results of genotoxicity tests from the ingredients were negative.

### CARCINOGENICITY:

**NTP:** Not listed

**IARC:** Not listed

**OSHA:** Not listed

**OTHER:** ACGIH: Not listed

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## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** When released into the environment, components of this formulation are expected to readily biodegrade.

**ECOTOXICOLOGICAL INFORMATION:** No data available for the product. A minor ingredient had LC<sub>50</sub> = 1.01 mg/L (96 hr, fathead minnow).

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## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** None of the components of this formulation are specifically listed as a "Hazardous Waste" in the Federal Regulations. Waste material should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product could change the waste

management options. Dispose of container and unused material in accordance with federal, state and local requirements.

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## 14. TRANSPORT INFORMATION

### U.S. DEPARTMENT OF TRANSPORTATION (DOT)

<b>PROPER SHIPPING NAME:</b>	Not regulated by U.S. DOT
<b>PRIMARY HAZARD CLASS / DIVISION:</b>	Not applicable
<b>UN/NA NUMBER:</b>	N/A
<b>PACKING GROUP:</b>	N/A
<b>LABEL(S):</b>	Not applicable
<b>PLACARD(S):</b>	Not applicable
<b>ADDITIONAL INFORMATION:</b>	DOT Marking: Not applicable Hazardous Substance/RQ: Not listed 49 STCC Number: Not applicable

### INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG)

<b>ADDITIONAL INFORMATION:</b>	Not regulated
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### INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) / INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)

<b>ADDITIONAL INFORMATION:</b>	NOTE: Venting of packages is not permitted for air transport.
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### OTHER INFORMATION:

N/A = Not applicable

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## 15. REGULATORY INFORMATION

### UNITED STATES

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**  
**SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355, APPENDIX A):**

None of the components are listed.

**SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):**

The Threshold Planning Quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs; however, this product contains the following ingredients with a TPQ of less than 10,000 lbs.:  
None

**SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):**

Not listed

**CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)****CERCLA DESIGNATION & REPORTABLE QUANTITIES (RQ) (40 CFR 302.4):**

None of the components are listed.

**TSCA (TOXIC SUBSTANCE CONTROL ACT)****TSCA INVENTORY STATUS (40 CFR 710):**

All components listed

**RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)****RCRA IDENTIFICATION OF HAZARDOUS WASTE (40 CFR 261):**

Waste Number: Not considered a hazardous waste.

**CANADA****WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):**

Not a controlled product under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Domestic Substance List: Listed (components)

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**16. OTHER INFORMATION****HMIS**

Health	1
Flammability	0
Physical Hazard	0
Personal Protection (PPE)	C

Protection = C (Safety glasses, gloves, apron)

HMIS = Hazardous Materials Identification System

Degree of Hazard Code:

4 = Severe

3 = Serious  
2 = Moderate  
1 = Slight  
0 = Minimal

**NFPA**

Health	1
Flammability	0
Reactivity	0
Special	

NFPA = National Fire Protection Association

Degree of Hazard Code:

4 = Extreme  
3 = High  
2 = Moderate  
1 = Slight  
0 = Insignificant

**REVISION SUMMARY:**

This MSDS replaces Revision #8, dated April 30, 2006.

Changes in information are as follows:

Section 14 (Transport Information)

Section 16 (Other Information)

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