

# MATERIAL SAFETY DATA SHEET

## Kumulus® DF

### I. NAME

PRODUCT/TRADE NAME: KUMULUS DF  
EPA REGISTRATION #: 51036-352-2935  
CHEMICAL NAME/COMMON NAME:  
Sulfur/Sulfur

### II. HAZARDOUS INGREDIENTS

|        | CAS#      | OSHA PEL | ACGIH TLV |
|--------|-----------|----------|-----------|
| Sulfur | 7704-34-9 | NE       | NE        |

### III. PHYSICAL DATA

SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 0.8-1.0 kg/L  
MELTING POINT: 115° C  
VAPOR DENSITY (AIR = 1): NA  
% VOLATILES BY VOL.: NA  
ODOR: Sulfur  
APPEARANCE: Gray/Brown Granules  
FLASH POINT/METHOD: 210°C / 410°C  
VAPOR PRESSURE (mmHg): NA  
SOLUBILITY IN H<sub>2</sub>O: Disperses

### IV. FIRE & EXPLOSION HAZARD

EXTINGUISHING MEDIA:  Water Fog  Foam  Alcohol Foam  
 CO<sub>2</sub>  Dry Chemical  Other

#### FIRE FIGHTING PRECAUTIONS & HAZARDS:

Fight fire upwind. Wear positive pressure self-contained breathing apparatus and full protective equipment. Avoid solid streams of water which may stir dust clouds or spread fire. Dust may form explosive mixture with air. Evacuate people downwind from fire.

### V. CARCINOGEN STATUS

OSHA  NTP  IARC  No Listing Type

### VI. REACTIVITY

Stable HAZARDOUS POLYMERIZATION  
 Unstable  May Occur  Will Not Occur  
AVOID: Oxidizers, Powdered carbon, moisture and excessive temperatures;  
flammable dust/air mixtures can form @80 mg/cu.m. air.  
HAZARDOUS DECOMPOSITION PRODUCTS: SO<sub>2</sub>

### VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE OF SPILL: Do not use flares in area. Wear appropriate eye protection. Control dust with water fog. Vacuum or sweep material into dry container.

DECONTAMINATION: Treat area with water until clean.

ENVIRONMENTAL HAZARDS: None

DISPOSAL: Use only DOT-approved disposal containers and dispose of in an EPA Class I disposal site.

### VIII. HEALTH PRECAUTION DATA

INGESTION: Acute oral LD<sub>50</sub> (rat) >2200 mg/kg (Arystra). Do not ingest. Wash before eating, drinking or smoking. Do not store near food or feed.

INHALATION: Nuisance dust PEL/TLV 15 mg/m<sup>3</sup> total dust. 5 mg/m<sup>3</sup> respirable dust. Wear approved respiratory protection for exposures above the PEL/TLV.

SKIN ABSORPTION: Acute dermal LD<sub>50</sub> (rat) >2000 mg/kg. May cause skin irritation. Remove from skin with soap and water.

EYE EXPOSURE: Sulfur may cause eye irritation. Do not rub eyes if exposed. Flush with water for a minimum of 15 minutes. Wear appropriate eye protection to reduce exposure.

EFFECTS OF OVEREXPOSURE: May cause skin or eye irritation. If ingested, it may cause vomiting and diarrhea. Chronic exposure may cause skin and eye irritation. Preexisting conditions involving the above symptoms can be aggravated by exposure.

FIRST AID: In all cases get prompt medical attention. If ingested, give several glasses of water. For eye exposure, irrigate eyes a minimum of 15 minutes with water. For skin exposure, remove contaminated clothing and wash with soap and water. If inhaled, remove to fresh air and administer CPR if necessary.

### IX. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use only NIOSH/MSHA - approved respiratory protection for nuisance particulates up to 10 times the PEL/TLV. Positive pressure self-contained breathing apparatus should be used for confined space entry and exposures above 10 times the PEL/TLV.

PERSONAL PROTECTIVE EQUIPMENT: Chemical resistant gloves, long-sleeved coveralls, safety goggles or glasses with side shields and brow protection.

VENTILATION: Local ventilation recommended for manufacture and formulation.

### X. SPECIAL PRECAUTIONS

Keep out of the reach of children. Read and follow all label instructions. Sulfur dust can be explosive. Do not allow dust to build up. Keep clear of ignition sources.

### XI. REGULATORY DATA

SARA HAZARD CLASS:  Acute  Chronic  Flammable  
 Pressure  Reactive  None

SARA 313:  Yes  No Chemical:

SARA 302:  Yes  No Chemical:

TPQ:

CERCLA:  Yes  No Chemical:

RQ:

RCRA:  Yes  No

#### NFPA HAZARD RATING:

Health: [2]

Fire: [1]

Reactivity: [0]

Special: [ ]

#### HMIS CODES:

Health: [2]

Fire: [1]

Reactivity: [0]

#### NFPA HAZARD RATING SCALE:

0 = Minimal 3 = Serious

1 = Slight 4 = Severe

2 = Moderate

#### HMIS HAZARD RATING SCALE:

0 = Minimal 3 = Serious

1 = Slight 4 = Severe

2 = Moderate

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REVISED DATE:

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\*Technical Material NE - Not Established NA - Not Applicable

**24 Hour Emergency Phone Number**  
**CHEMTREC: (800) 424-9300**

