

SIGMA CHEMICAL COMPANY -- D5879 DIMETHYL SULFOXIDE -- 6505-01-200-7292

===== Product Identification =====

Product ID:D5879 DIMETHYL SULFOXIDE

MSDS Date:05/01/1999

FSC:6505

NIIN:01-200-7292

Status Code:A

MSDS Number: CKKDD

=== Responsible Party ===

Company Name:SIGMA CHEMICAL COMPANY

Box:14508

City:SAINT LOUIS

State:MO

ZIP:63178

Country:US

Info Phone Num:800-325-3010 OR 314-771-5765

Emergency Phone

Num:314-771-5765

CAGE:TO609

=== Contractor Identification ===

Company Name:ALDRICH CHEMICAL CO INC

Address:1001 WEST ST PAUL AVE

Box:355

City:MILWAUKEE

State:WI

ZIP:53233

Country:US

Phone:414-273-3850

CAGE:60928

Company Name:FLUKA CHEMICAL CORP

Address:1001 WEST ST PAUL

Box:City:MILWAUKEE

State:WI

ZIP:53233

Country:US

Phone:414-273-3850

CAGE:63181

Company Name:SIGMA CHEMICAL COMPANY

Address:3050 SPRUCE ST

Box:14508

City:ST LOUIS

State:MO

ZIP:63178

Country:US

Phone:314-771-5765

CAGE:21076

Compan

y Name:SIGMA CHEMICAL COMPANY
Address:Box:14508
City:SAINT LOUIS
State:MO
ZIP:63178
Country:US
Phone:1-800-325-3010
CAGE:TO609

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Composition/Information on Ingredients
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Ingred Name:DIMETHYL SULFOXIDE
CAS:67-68-5
RTECS #:PV6210000
Other REC Limits:NONE RECOMMENDED

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Hazards Identification
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LD50 LC50 Mixture:ORAL, RAT LD50:14,500 MG/KG
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Health Hazards Acute and Chronic:
MAY BE HARMFUL BY INHALATION,
INGESTION OR SKIN ABSORPTION. VAPOR OR MIST IS IRRITATING TO THE
EYES, MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. CAUSES SKIN
IRRITATION. AVOID CONTACT WITH DMSO SOLUT IONS CONTAINING TOXIC
MATERIALS OR MATERIALS WITH UNKNOWN TOXICOLOGICAL PROPERTIES.
DIMETHYL SULFOXIDE IS READILY ABSORBED THROUGH SKIN AND MAY CARRY
SUCH MATERIALS INTO THE BODY.

Explanation of Carcinogenicity:NO DATA PROVIDED BY RESPONSIBLE PARTY.

Effects of Overexposure:M

AY BE HARMFUL BY INHALATION, INGESTION OR SKIN
ABSORPTION. VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS
MEMBRANES AND UPPER RESPIRATORY TRACT. CAUSES SKIN IRRITATION.

Medical Cond Aggravated by Exposure:NO DATA PROVIDED BY RESPONSIBLE
PARTY.

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First Aid Measures
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First Aid:IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES OR SKIN WITH
COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING
CONTAMINATED CLOTHING AND SHOES. I

F INHALED, REMOVE TO FRESH AIR.

IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING DIFFICULT, GIVE OXYGEN. IF SWALLOWED, WASH MOUTH OUT WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN. WASH CONTAMINATED CLOTHING BEFORE REUSE.

===== Fire Fighting Measures =====

Flash Point:=-85.C, 185.F

Autoignition Temp:=-300.6C, 573.F

Lower Limits:3.5

Upper Limits:63

Extinguishing Media:WATER SPRAY, CARBON DIOXIDE, DRY CHEMICAL POWDER OR

APPROPRIATE FOAM.

Fire Fighting Procedures:WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. COMBUSTIBLE LIQUID.

Unusual Fire/Explosion Hazard:EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

===== Accidental Release Measures =====

Spill Release Procedures:EVACUATE AREA. WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES. ABSORB ON SAND OR VERMICULITE AND PLACE IN CLOSED CONTAINERS FOR DISPOSAL. VENTILATE

AREA AND WASH SPILL SITE AFTER MATERIAL PICK UP IS COMPLETE.

Neutralizing Agent:NO DATA PROVIDED BY RESPONSIBLE PARTY.

===== Handling and Storage =====

Handling and Storage Precautions:USE ONLY IN A CHEMICAL FUME HOOD. DO NOT BREATHE VAPOR. DO NOT GET IN EYES, ON SKIN, ON CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE. KEEP TIGHTLY CLOSED. KEEP AWAY FROM HEAT AND OPEN FLAME. STORE IN A COOL, DRY PLACE.

Other Precautions:

NO DATA PROVIDED BY RESPONSIBLE PARTY.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR.

Ventilation:USE ONLY IN CHEMICAL FUME HOOD.

Protective Gloves:CHEMICAL-RESISTANT GLOVES.

Eye Protection:SAFETY GOGGLES.

Other Protective Equipment:WEAR OTHER PROTECTIVE CLOTHING. SAFETY SHOWER AND EYE BATH.

Work Hygienic Practices:WASH THOROUGHLY AFTER HANDLING.

Supplemental Safety and Health

NO DATA PROVIDED

BY RESPONSIBLE PARTY.

===== Physical/Chemical Properties =====

HCC:V4

Boiling Pt:=189.C, 372.2F

Melt/Freeze Pt:=18.4C, 65.1F

Vapor Pres:0.42 MM HG @ 20C

Vapor Density:2.7

Spec Gravity:1.101

Appearance and Odor:LIQUID

Corrosion Rate:NP

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

ACID CHLORIDES, PHOSPHOROUS HALIDES, STRONG ACIDS, STRONG OXIDIZING AGENTS, STRONG REDUCING AGENTS, SENSITIVE TO MOISTURE.

Stability Condition to Avoid:NO DATA PROVIDED BY RESPONSIBLE PARTY.

Hazardous Decomposition Products:TOXIC FUMES OF CARBON MONOXIDE, CARBON DIOXIDE, SULFUR OXIDES.

Conditions to Avoid Polymerization:WILL NOT OCCUR.

===== Toxicological Information =====

Toxicological Information:TO THE BEST OF OUR KNOWLEDGE THE CHEMICAL, PHYSICAL AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED. TARGET ORGANS DATA: BEHAVIORAL (ALTERED SLEEP TIME);

LUNGS, THORAX OR RESPIRATION (DYSPNOEA); LUNGS, THORAX OR RESPIRATION (CYANOSIS); GASTROINTESTINAL (NAUSEA OR VOMITING); LIVER (JAUNDICE, OTHER OR UNCLASSIFIED); BLOOD (OTHER CHANGES); EFFECTS ON FERTILITY (PRE-IMPLANTATION MORTALITY); EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY); SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM); ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE.

===== Ecological Information =====

Ecological:DATA NOT YET AVAILABLE.

===== Disposal Considerations =====

Waste Disposal Methods:DISSOLVE/MIX MATERIAL WITH COMBUSTIBLE SOLVENT & BURN IN CHEMICAL INCINERATOR EQUIPPED WITH AFTERBURNER & SCRUBBER.OBSERVE ALL LOCAL, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS.

===== MSDS Transport Information =====

Transport Information:CONTACT SIGMA CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

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Regulatory Information
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SARA Title III Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.
Federal Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.
State Regulatory Information:NO DATA PROVIDED BY RESPONSIBLE PARTY.

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Other Information
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