



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

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EPM00047 CoppeReady(R) Cu300
Revised 24-JUL-2008

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Tradenames and Synonyms

Colloidal Silica

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont Air Products Nanomaterials LLC
2441 West Erie Drive
Tempe
Arizona
USA
85282

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside U.S 302-774-1000)
Transport Emergency : CHEMTREC 1-800-424-9300 (outside U.S
703-527-3887)
Medical Emergency : 1-800-441-3637 (outside U.S 302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
Amorphous Silica	7631-86-9	1-5
Water	7732-18-5	>95

HAZARDS IDENTIFICATION

Potential Health Effects

This product has not been tested as a whole for health effects. A corrosivity screening test was performed and the results indicated that the mixture is not corrosive to skin. The general information reported here is based on the health effects of the individual components of this mixture.

Amorphous Silica

Oral LD50: >10,000 mg/kg in rats

Skin contact may cause skin irritation with discomfort or rash, and possibly skin burns.

Eye contact may cause eye irritation with discomfort, tearing, or blurring of vision.

(HAZARDS IDENTIFICATION - Continued)

Inhalation of Amorphous Silica may cause drying of mucous membranes and irritation of nose, throat, and lungs with nosebleeds, cough, difficulty breathing or shortness of breath. Based on animal experiments, long term exposures to high doses could lead to pulmonary inflammation and subsequent development of chronic lung disease. Amorphous Silica does not induce the lung effects associated with crystalline silica.

Epidemiology studies have not shown any evidence of fibrosis in workers exposed to Amorphous Silica dust levels ranging from 2 to 7 mg/m³.

Because the long-term human health effects from exposure to have not been fully evaluated, this product may be harmful if swallowed.

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.

FIRST AID MEASURES

First Aid

INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

Flush skin with water after contact. Wash contaminated clothing before reuse.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

(FIRST AID MEASURES - Continued)

Notes to Physicians

Activated charcoal mixture may be beneficial. Suspend 50 g activated charcoal in 400 mL water and mix well. Administer 5 mL/kg, or 350 mL for an average adult.

FIRE FIGHTING MEASURES

Flammable Properties

This material does not pose a fire or explosion hazard.

Extinguishing Media

Use media appropriate for surrounding material.

Fire Fighting Instructions

Evacuate personnel to a safe area. Isolate area.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Ventilate spill area.

Initial Containment

Dike spill.

Spill Clean Up

Soak up with sawdust, sand, oil dry or other absorbent material.

HANDLING AND STORAGE

Handling (Personnel)

Do not get in eyes. Avoid inhalation. Avoid contact with skin. Avoid contact with clothing. Wash thoroughly after handling. Wash clothing after use.

Handling (Physical Aspects)

Close container after each use.

(HANDLING AND STORAGE - Continued)

Storage

Store in a well ventilated place. Close container after each use.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear coverall chemical splash goggles.

RESPIRATORS

Wear NIOSH approved respiratory protection, as appropriate.

PROTECTIVE CLOTHING

Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants, and jacket.

Exposure Guidelines

Applicable Exposure Limits

Amorphous Silica

PEL (OSHA) : 80 mg/m³ / % SiO₂ - 8 Hr TWA
AEL * (DuPont) : 3 mg/m³, 8 & 12 Hr. TWA, respirable dust

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point : ~100 C (~212 F)
Freezing Point : ~0 C (~32 F)
pH : 7.1-9
Odor : None.
Form : Liquid Dispersion.
Color : Milky, White.
Specific Gravity : 1-1.2

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Perishable if frozen (Silica will agglomerate). Do NOT allow to freeze!

Incompatibility with Other Materials

Material is perishable if frozen (non-hazardous, irreversible silica agglomeration). Do NOT allow to freeze. Store at >40 degF.

Decomposition

Decomposition will not occur.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

Amorphous Silica:

Oral LD50: >10,000 mg/kg in rats

Animal testing indicates Amorphous Silica is a mild eye irritant. It is a negligible to slight skin irritant when tested as a 50% aqueous paste. The dust is not expected to be a skin irritant. Animal testing indicates Amorphous Silica is not a skin sensitizer. Single, repeated and long-term exposure by ingestion to Amorphous Silica caused no significant toxicological effects. Single exposure by inhalation to Amorphous Silica caused no significant toxicological effects. Repeated exposure caused pulmonary changes including reversible inflammation. Long-term exposure caused pulmonary changes including reversible inflammation, vascular obstruction and emphysema. Animal testing indicates Amorphous Silica does not have carcinogenic or reproductive effects. No animal data are available to define the developmental toxicity of Amorphous Silica. Amorphous Silica has not produced genetic damage in bacterial cultures. It has not been tested for genetic toxicity in mammalian cell cultures or in animals.

ECOLOGICAL INFORMATION

Ecotoxicological Information

96 hour LC50 - Fathead minnows:

LC50=5600 ppm

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

REGULATORY INFORMATION

U.S. Federal Regulations

This product complies with TSCA inventory reporting requirements.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes
Chronic : Yes
Fire : No
Reactivity : No
Pressure : No

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating
Health : 1
Flammability : 0
Reactivity : 0

Suggested HMIS ratings are based on characteristics of components where a specific product has not been tested. The component with the most significant hazard potential determines the rating for the mixture when the mixture is not tested.

Additional Information

CoppeReady(R) is a registered trademark of Ashland Inc.
licensed to DuPont Air Products Nanomaterials L.L.C.

(Continued)

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : DuPont AirProducts Nanomaterials LLC
MSDS Coordinator
Telephone : (757) 686-8663 or (919) 248-5027

Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS