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

Calcium Sulfate
L0000073 Revised 14-OCT-2006

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

CAS Number	: 10101-41-4
Formula	: CASO4.2H20
Molecular Weight	: 172.18
CAS Name	: Sulfuric Acid, Calcium (2+), Salt, Dihydrate

Tradenames and Synonyms

Gypsum
Land Plaster
Soluble Anhydrite
Calcium (II) Sulfate Dihydrate (1:1:2)

Company Identification

MANUFACTURER/DISTRIBUTOR
DuPont
12501 Strang Road
P.O. Box 347
La Porte, TX 77572-0347

PHONE NUMBERS

Product Information	: 1-800-441-3637
Transport Emergency	: 1-800-424-9300

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
Calcium Sulfate	10101-41-4	71.1
Calcium Fluoride	7789-75-5	3.1
H2O-Free (Water)	7732-18-5	24.9
Calcium Hydroxide	1305-62-0	0.1
Misc. Materials		0.3
Silicon Dioxide	14808-60-7	0.5

HAZARDS IDENTIFICATION

Potential Health Effects

Skin contact may cause skin irritation with discomfort or rash.

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

Inhalation may initially cause irritation of the upper respiratory passages, with coughing and discomfort.

Ingestion may cause gastrointestinal tract disturbances.

Epidemiologic studies demonstrate significant risk of lung cancer in fluorspar miners, but the increase is attributed to radon gas in the mines.

The predominant effect of overexposure to airborne silicon dioxide in humans is silicosis. Silicosis is a chronic disease characterized by the formation of silica-containing scar tissue in the lungs with symptoms of coughing, dyspnea, wheezing, and nonspecific respiratory ailments.

Several recent epidemiology studies have shown, that in addition to silicosis, there is limited evidence of an excess of lung cancer in occupations involving exposures mainly to crystalline silica, such as stone cutters and granite industry workers. Occupational exposure at the recommended AEL of 0.1 mg/m3 should protect workers from silicosis and lung tumors.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
Silicon Dioxide	1	X		A2

DuPont controls the following materials as carcinogens:
Silicon Dioxide.

FIRST AID MEASURES

First Aid

INHALATION

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

(FIRST AID MEASURES - Continued)

SKIN CONTACT

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable.

EYE CONTACT

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

INGESTION
FIRST AID: Give soluble calcium in any form: milk, calcium gluconate solution, or calcium lactate solution. For calcium salts, the concentration should be 10 g in 250 ml of water. Give calcium gluconate, 10 g, and Fleet’s Phospho-Soda, 30-60 ml diluted 1:4 in water orally.

NOTE TO PHYSICIANS: If indicated, give calcium gluconate, 10 ml of 10% solution IV slowly; repeat until symptoms disappear.

FIRE FIGHTING MEASURES

Flammable Properties

Not normally flammable.

Hazardous gases/vapors produced in fire are oxides of sulfur.

Extinguishing Media

Use media appropriate for surrounding material.

Fire Fighting Instructions

Wear self-contained breathing apparatus. Wear full protective equipment.

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.

Spill Clean Up

Shovel or sweep up.

HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing dust. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

Handling (Physical Aspects)

Avoid dust generation.

Storage

Store in a well ventilated place.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation. Keep container tightly closed.

Personal Protective Equipment

Eye/Face
Safety glasses or coverall chemical splash goggles.

Respiratory Protection
NIOSH approved respirator as necessary.

Protective Gloves
Leather or rubber gloves.

Exposure Guidelines

Exposure Limits

Calcium Sulfate

TLV	(ACGIH)	: 10 mg/m3, Inhalable fraction, 8 Hr. TWA

Other Applicable Exposure Limits

Calcium Fluoride

PEL	(OSHA)	: Fluoride as Dust 2.5 mg/m3 - 8 Hr TWA
TLV	(ACGIH)	: Fluorides as F 2.5 mg/m3 - 8 Hr TWA
AEL *	(DuPont)	: 5 mg/m3, 8 Hr. TWA

Calcium Hydroxide

PEL	(OSHA)	: None Established
TLV	(ACGIH)	: 5 mg/m3, 8 Hr. TWA
AEL *	(DuPont)	: None Established

Silicon Dioxide

(Other Applicable Exposure Limits - Continued)

PEL	(OSHA)	: Total dust, (30 mg/m3 / % SiO2 + 2) Respirable dust, (10 mg/m3 / % SiO2 + 2) as 8 Hr TWA's
TLV	(ACGIH)	: 0.025 mg/m3, respirable dust, 8 Hr. TWA, A2
AEL *	(DuPont)	: 0.1 mg/m3, 8 Hr. TWA, respirable dust 0.05 mg/m3, 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	: 163 C (325 F)
Vapor Pressure	: <1 mm Hg
Melting Point	: 128 C (262 F)
Solubility in Water	: 0.2 WT% @ 20 C (68 F)
Odor	: Odorless
Form	: Powder crystal
Color	: White crystal with gray
Specific Gravity	: 2.32

STABILITY AND REACTIVITY

Chemical Stability

Stable.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

Decomposes by reaction with extreme heat. Highly toxic SOx fumes.

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

CALCIUM FLUORIDE

Oral LD50: 4250 mg/kg in rats

A single dose of calcium fluoride, when blown into rats lungs, produced inflammation, thickening of the walls of the air sacs (alveoli), and caused white blood cells to migrate and accumulate in the lungs. Effects of repeated inhalation exposure include inflammation, occasional necrosis, and isolated signs of fibrosis (scarring).

Tests in animals demonstrate no developmental toxicity, but high doses are said to retard calcification of teeth and jaws.

CALCIUM SULFATE

Oral LD50: > 25,000 mg/kg in rats

The compound is a slight skin irritant and is not an eye irritant.Animal testing indicates that this compound does not have carcinogenic, mutagenic, or embryotoxic effects.

SILICON DIOXIDE

Oral ALD: >11,000 mg/kg in male rats

The compound is not a skin irritant or a skin sensitizer in animals, but is a mild eye irritant in animals.

Single doses of 50 mg quartz administered by intratracheal instillation have resulted in pulmonary fibrosis at 60 and 120 days post exposure in rats.

Repeated and chronic exposures as low as 0.7 mg instillation and 12 mg/m3 by inhalation resulted in pulmonary fibrosis, inflammation, edema and emphysema in animals exposed to quartz.

Lung tumors were observed in rats exposed for up to two years by inhalation to 12.4 or 51.6 mg/m3 quartz. Lung tumors were also observed in rats exposed to quartz by intratracheal instillation. Silica was positive in mammalian cell cultures for cell transformation and chromosomal effects. It was negative in cell culture assays for gene mutation in bacteria and DNA damage in mammalian cells and in a whole animal assay for chromosomal effects.

ECOLOGICAL INFORMATION

Ecotoxicological Information

Aquatic Toxicity

TLM 96: >1000 ppm for calcium sulfate, precipitated

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Recover for reclamation. Remove nonusable solid material and/or contaminated soil, for disposal in an approved and permitted landfill.

TRANSPORTATION INFORMATION

Shipping Information

DOT
Proper Shipping Name : Not regulated

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating
Health : 2 (Chronic Health Effects)
Flammability : 0
Reactivity : 0

Personal Protection rating to be supplied by user depending on use conditions.

Additional Information

Latest MSDS revision date: 98/02/28.

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 : HF Area Supervisor
Address : P.O. Box 347
La Porte, TX 77572-0347
Telephone : 281-470-3736

(Continued)

# 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