



DuPont Chemicals

3004CR

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STAUROLITE PRODUCTS

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

Corporate MSDS Number DU002808

Grade See Component Section

Tradenames and Synonyms

STAUROLITE SANDS
BIASILL
COARSE STAUROLITE
STARBLAST
STARBLAST XL
STARBLAST ULTRA

Company Identification

MANUFACTURER/DISTRIBUTOR
DuPont
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

Product Information 1-800-441-9442
Transport Emergency CHEMTREC: 1-800-424-9300
Medical Emergency 1-800-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components Material	CAS Number	%
"BIASILL":		
STAUROLITE	12182-56-8	86
TITANIUM MINERALS		6
QUARTZ	14808-60-7	<5
ZIRCON	14940-68-2	3

(Continued)

COMPOSITION/INFORMATION ON INGREDIENTS(Continued)

KYANITE	1302-76-7	2
COARSE STAUROLITE:		
STAUROLITE	12182-56-8	85
TITANIUM MINERALS		10
QUARTZ	14808-60-7	<5
"STARBLAST":		
STAUROLITE	12182-56-8	86
TITANIUM MINERALS		6
QUARTZ	14808-60-7	<5
ZIRCON	14940-68-2	3
KYANITE	1302-76-7	2
"STARBLAST" XL:		
STAUROLITE	12182-56-8	90
TITANIUM MINERALS		6
ZIRCON	14940-68-2	2
KYANITE	1302-76-7	1
QUARTZ	14808-60-7	<1
"STARBLAST" ULTRA		
STAUROLITE	12182-56-8	85
TITANIUM MINERALS		7
QUARTZ	14808-60-7	<5
ZIRCON	14940-68-2	3
KYANITE	1302-76-7	2

HAZARDS IDENTIFICATION**Potential Health Effects**

The product, as shipped, does not pose any inhalation health hazard because it contains essentially no particles in the respirable size range. However, if during handling or use, the particles are broken down to a size that can be inhaled,

(Continued)

HAZARDS IDENTIFICATION(Continued)

the dusts may be harmful to the respiratory system. Eye contact with mineral sands may cause irritation with discomfort, tearing, and blurring of vision.

Stauroilite Products may contain up to 5% quartz. Effects noted in animals exposed to respirable quartz by inhalation or intratracheal instillation included pulmonary fibrosis, inflammation, edema, and emphysema. Lung tumors occurred in rats exposed by inhalation for up to two years to levels of 12.4 or 51.6 mg/m³ of respirable quartz. Also lung tumors were seen in studies in which quartz was instilled in the trachea of rats. Quartz was positive in mammalian cell cultures for cell transformation and chromosomal effects and 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.

The predominant effect of overexposure to airborne respirable quartz in humans is silicosis. Silicosis is a chronic fibrotic lung disease characterized by formation of silica-containing scar tissue in the lungs with symptoms of coughing, dyspnea, wheezing and nonspecific respiratory ailments. Gross acute overexposures to quartz by inhalation may cause fatality. Epidemiological studies show that in addition to silicosis there is limited evidence of excess lung cancer in occupations involving exposures mainly to respirable quartz, such as stone cutters and granite industry workers.

Individuals with preexisting conditions of the lungs may have increased susceptibility to the toxicity of excessive exposures.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens. A "P" indicates a proposed carcinogen.

Material	IARC	NTP	OSHA	ACGIH
QUARTZ	X	X		

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.

SKIN CONTACT

The compound is not hazardous by skin contact, but removal of particles and cleansing the skin after use is

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FIRST AID MEASURES(Continued)

advisable.

EYE CONTACT

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

INGESTION

No specific intervention is indicated as the compound is not hazardous by ingestion. However, if symptoms occur, consult a physician.

FIRE FIGHTING MEASURES**Flammable Properties**

Will not burn.

Extinguishing Media

As appropriate for combustibles in area.

Fire Fighting Instructions

None.

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.

Accidental Release Measures

Sweep up spillage.

HANDLING AND STORAGE**Handling (Personnel)**

Avoid breathing dust. Wash thoroughly after handling.

If handling respirable flour, use of gloves and washing before eating, drinking, applying cosmetics or smoking is advisable to minimize dust inhalation from hands.

EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering Controls**

Use sufficient ventilation to keep employee exposure below recommended limits.

If using this product as an abrasive blast agent in confined areas, airborne dust levels should be controlled by physical enclosure of the abrasive blasting operation. The enclosure

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EXPOSURE CONTROLS/PERSONAL PROTECTION(Continued)

should be exhaust ventilated in accordance with 29 CFR 1910.94 Ventilation (a) Abrasive blasting.

Personal Protective Equipment
EYE/FACE PROTECTION

Wear safety glasses with side shields.

RESPIRATORS

A NIOSH/MSHA approved air purifying respirator with a dust/mist cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited.

For abrasive blasting use a continuous flow air-line respirator covering head, neck, and shoulders to provide protection from rebound abrasive per 29 CFR 1910.94 (a)(5).

PROTECTIVE CLOTHING

Wear impervious clothing, such as gloves, apron, boots or whole bodysuit, as appropriate.

Exposure Guidelines**Exposure Limits****STAUROLITE PRODUCTS**

PEL (OSHA)	Particulates (Not Otherwise Regulated) 15 mg/m ³ , 8 Hr. TWA, total dust 5 mg/m ³ , 8 Hr. TWA, respirable dust
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Other Applicable Exposure Limits**QUARTZ**

PEL (OSHA)	Total dust, (30 mg/m ³ / % SiO ₂ + 2) Respirable dust, (10 mg/m ³ / % SiO ₂ + 2) as 8 Hr TWA's
TLV (ACGIH)	0.1 mg/m ³ , respirable dust, 8 Hr. TWA Notice of Intended Changes (1995-1996) A2 Or see: Christobalite [14464-46-1], Silica, Fused [60676-86-0], Tridymite [15468-32-2], Tripoli [1317-95-9]
AEL * (DuPont)	0.1 mg/m ³ , 8 Hr. TWA, respirable dust

ZIRCON

PEL (OSHA)	5 mg/m ³ , 8 Hr. TWA, as Zr
TLV (ACGIH)	5 mg/m ³ , 8 Hr. TWA, STEL 10 mg/m ³ , as Zr Notice of Intended Changes (1995-1996) A4
AEL * (DuPont)	None Established

* 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.

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PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Vapor Pressure	Not volatile
Vapor Density	Not volatile
Melting Point	1,370 C (2,500 F)
Evaporation Rate	(Butyl Acetate = 1)
	Not volatile
Solubility in Water	Insoluble
Odor	Odorless
Form	Solid, free-flowing sand
Color	Reddish brown
Specific Gravity	3.7

STABILITY AND REACTIVITY

Chemical Stability

Stable.

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

Decomposition will not occur.

Polymerization

Polymerization will not occur.

DISPOSAL CONSIDERATIONS

Waste Disposal

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

If approved, may be transferred to a land disposal site.

TRANSPORTATION INFORMATION

Shipping Information

Shipping Containers

Hopper Cars
Hopper Trucks
Bags
Semi-bulk Bags

STAUROLITE PRODUCTS ARE NOT REGULATED AS A HAZARDOUS MATERIAL BY DOT OR IMO.

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REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

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

LISTS:

SARA Extremely Hazardous Substance -No
CERCLA Hazardous Material -No
SARA Toxic Chemical -No

CANADIAN WHMIS CLASSIFICATION:

D-2A

OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating
Health 0
Flammability 0
Reactivity 0

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

Additional Information

For further information, see DuPont Stauroelite Sands Data Sheet.

WARNING!

This product contains quartz which is known to the state of California to cause cancer.

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 Chemicals
Address Engineering & Product Safety
 P. O. Box 80709, Chestnut Run
 Wilmington, DE 19880-0709
Telephone 302-999-4946

Indicates updated section.

End of MSDS