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DuPont
Material Safety Data Sheet

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MICROPLANAR(R) STI2100(TM)
EPM00080 Revised 26-JUN-2008

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Product Use

CMP

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont Air Products NanoMaterials L.L.C.
2441 W.Erie Dr.
Tempe
AZ
United States
85282

PHONE NUMBERS

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

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
Cerium Oxide	1306-38-3	1-5
Water	7732-18-5	>95

HAZARDS IDENTIFICATION

Emergency Overview

CAUTION

White slurry with a slight ammonia odor.
May cause eye irritation.

Potential Health Effects

INHALATION

No adverse effects expected.

EYE CONTACT

May cause irritation.

SKIN CONTACT

No information is available.

INGESTION

(HAZARDS IDENTIFICATION - Continued)

No adverse effects known.

TARGET ORGANS
Eyes.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None have been identified.

POTENTIAL ENVIRONMENTAL EFFECTS
None have been identified.

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

No specific intervention is indicated as the compound is not likely to be hazardous by inhalation. Consult a physician if necessary.

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.

Notes to Physicians

Treat symptomatically as required by the condition of the patient.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point : Not Flammable
Autoignition : Not Available
Flammable limits in Air, % by Volume
LEL : None
UEL : None

Extinguishing Media

Use media appropriate for surrounding material.

Fire Fighting Instructions

Evacuate personnel to a safe area. Wear full protective equipment. Shut off source of fuel, if possible and without risk. Cool tank/container with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS.
None known.

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.

Initial Containment

Follow applicable Federal, State/Provincial and Local laws/regulations.

Spill Clean Up

Soak up with sawdust, sand, oil dry or other absorbent material. Dispose of in an approved container. All flushing and clean-up residuals should be collected for proper disposal to prevent soil and surface, ground and sewer water contamination. Comply with Federal, State, and local regulations for reporting releases.

HANDLING AND STORAGE

Handling (Personnel)

Avoid contact with eyes, skin or clothing. Use with sufficient ventilation to keep employee exposure below recommended limits. Wash thoroughly after handling. Wash clothing after use.

(HANDLING AND STORAGE - Continued)

Handling (Physical Aspects)

Keep container tightly closed.

Storage

Store in a cool, dry, well-ventilated area. Store in original container. Store between 40-90 F (4-32 C).

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

Personal Protective Equipment

EYE/FACE PROTECTION: Wear safety glasses.

RESPIRATORS: Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH approved respiratory protection.

SKIN PROTECTION: Wear protective gloves to minimize skin contamination. Wash hands and contaminated skin thoroughly after handling.

Exposure Guidelines

Exposure Limits

MICROPLANAR(R) STI2100(TM)
PEL (OSHA) : None Established
TLV (ACGIH) : None Established

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point : 212 F (100 C)
Vapor Pressure : Not Available
Vapor Density : Not Available
Freezing Point : 32 F (0 C)
Evaporation Rate : Not Available
Solubility in Water : Complete
pH : ~4.5-5.5
Odor : Ammonia.
Color : White.
Specific Gravity : 1-1.1
Form : Liquid Dispersion.

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

Mineral acids.

Decomposition

None known.

Polymerization

Will not normally occur.

TOXICOLOGICAL INFORMATION

Animal Data

INHALATION

No additional information available.

EYE CONTACT

In vitro IDE score: 17.2/110, slightly irritating.

SKIN CONTACT

No additional information available.

INGESTION

No additional information available.

GENOTOXICITY

No information available.

TARGET ORGANS

Eyes.

DATA FOR CERIUM OXIDE, A COMPONENT OF MICROPLANAR(R)
STI2100(TM)

INHALATION

High concentrations may cause headache, nausea, or
bronchitis.

EYE CONTACT

In vitro IDE score: 17.2/110, slightly irritating.

SKIN CONTACT

Irritation; dust may cause burning, tearing, and redness.

INGESTION

(TOXICOLOGICAL INFORMATION - Continued)

LD50, rat: >5000 mg/kg, not harmful

SUBCHRONIC TOXICITY

Inhalation study (rat, 6hr/day, 5days/week, 13 weeks):
NOAEL = 0.5 mg/l, the highest level tested
Pigment accumulation noted in the lungs, nasal cavity,
bronchi, lymph nodes, trachea, liver and spleen, indication
that normal clearance mechanisms were overwhelmed.

TARGET ORGANS

Respiratory tract and eyes.

ECOLOGICAL INFORMATION

Ecotoxicological Information

No information is available.

DISPOSAL CONSIDERATIONS

Waste Disposal

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

Incineration at a facility with proper Federal and State
issued permits is the recommended method for disposal.

Container Disposal

Observe all label warnings. Empty containers may contain
hazardous residue. Refer to applicable Local, State/Provincial,
and Federal Regulations, as well as industry Standards.

Keep away from heat, sparks, and flames. Do not distribute,
make available, or reuse empty containers except for storage
and shipment of original product. Remove all hazardous
product residue, and puncture or otherwise destroy empty
containers before disposal. Consult 40 CFR, Parts 261 and
268 for guidance on disposal.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO/IATA
Not Regulated.

REGULATORY INFORMATION

U.S. Federal Regulations

This product complies with TSCA inventory reporting requirements.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 Hazard Categories: None

313: This product is not subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION AND LIABILITY ACT)

Reportable Quantity (RQ): None

We recommend you contact local authorities to determine if there may be other local reporting requirements.

OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Rating	
Health	: 1
Flammability	: 0
Reactivity	: 0

Additional Information

This material is for industrial use and should only be used under the supervision of a technically qualified individual.

MicroPlanar(R) is a registered trademark of EKC Technology, Inc. licensed to DuPont Air Products Nanomaterials L.L.C.

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 : 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