

Material Safety Data Sheet



VM-651

VM651

Revised 3-FEB-2006

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CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Tradenames and Synonyms

Semiconductor Material

Company Identification

MANUFACTURER/DISTRIBUTOR

HD MicroSystems(TM)
Cheesequake Road
Parlin
New Jersey
USA
08859

PHONE NUMBERS

Product Information : (800) 441-7515 (Outside the US (302)
774-1000)
Transport Emergency : (800) 424-9300 (Outside the US (703)
527-3887)
Medical Emergency : (800) 441-3637 (Outside the US (302)
774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
Proprietary Ingredient(s)		>60

Components (Remarks)

The specific identities of the Proprietary Ingredient(s) are withheld as tradeseecrets.

HAZARDS IDENTIFICATION

Potential Health Effects

>>>Proprietary Ingredient(s)
****Toxic effects described in animals include: BY SKIN OR EYE CONTACT: Corrosive to the skin; Corrosive to the eye.
****Human health effects of overexposure may include: BY SKIN OR EYE CONTACT: Skin irritation with discomfort or rash; May cause eye corrosion with corneal or conjunctival ulceration. ****Human effects of higher level acute, repeated or chronic overexposure may include: BY SKIN OR EYE CONTACT: Skin burns or ulceration; BY INHALATION: Temporary

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(HAZARDS IDENTIFICATION - Continued)

central nervous system depression with anaesthetic effects: dizziness, headache, confusion, incoordination, and loss of consciousness. ***In addition: Skin permeation can occur in amounts capable of producing effects of systemic toxicity. Individuals may have increased susceptibility to the hazards of overexposure to ingredient(s) of this product if they have pre-existing diseases of the: Skin.

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

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. 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

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.

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FIRE FIGHTING MEASURES

Flammable Properties

Flash Point : <200 F (<93 C) Calculated

Not a fire or explosion hazard.

Extinguishing Media

Sand, Dry Chemical, Carbon Dioxide.

Fire Fighting Instructions

Wear full protective equipment. Wear self-contained breathing apparatus (SCBA) and full protective equipment. Thoroughly decontaminate all equipment used in firefighting efforts before returning to service.

Toxic decomposition products may form under fire conditions.
(See Decomposition Section.)

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

Spill, Leak or Release:

FOR SMALL SPILLS, absorb on rags, sand or other absorbent material;

FOR LARGE SPILLS, get workers out of affected area. If flammable liquids or vapors may be present, turn off electrical devices or other sources of sparks or flames. WEAR PROTECTIVE EQUIPMENT. Use supplied-air respiratory protection if vapor concentrations are not known; Contain spill at source by diking or absorbing with sand. Do not allow spill to spread to or intentionally flush to sewer or ground. Wash area thoroughly. Adequately ventilate area; Spill residue, cleaning rags and absorbent may be considered hazardous. (See Waste Disposal Section.).

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HANDLING AND STORAGE

Handling (Personnel)

Avoid contact with eyes, skin or clothing. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Wash thoroughly after handling. Avoid breathing dust.

Storage

Store below 90 F (32 C).

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use sufficient ventilation to keep employee exposure below recommended limits.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses or coverall chemical splash goggles.

Recommended glove material: Poly Vinyl Chloride.

PROTECTIVE CLOTHING

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

Respiratory Protection:

A NIOSH/MSHA approved full-face mask equipped with chemical cartridges approved for methylamine may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, when exposure levels are not known, or in any other circumstances where air purifying respirators may not provide adequate protection; For most conditions, no respiratory protection should be needed; however, if handling at elevated temperatures without sufficient ventilation, use an approved air- purifying respirator. In dusty atmospheres, use an approved dust respirator; Selection of a suitable respirator will depend on the properties of the contaminant(s) and their actual or expected air concentration(s) versus applicable limits. Consult ANSI Standard Z88.2 for decision logic to select appropriate NIOSH/MSHA approved respirators; A NIOSH/MSHA/OSHA approved air purifying respiratory with a

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(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

dust/mist cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known or any other circumstances where air purifying respirators may not provide adequate protection; Use a positive pressure air-supplied respirator if concentrations may exceed exposure limits. Air-purifying respirators are inadequate for this material; If respirators are needed to meet applicable limits, a respiratory protection program up to the level of OSHA Standard 29 CFR 1910.134 is mandatory. This includes air monitoring, selection, medical approval, training, fit testing, inspection, maintenance, cleaning, storage, etc; An OSHA/NIOSH respirator for protection against Nuisance Dust is recommended.

Exposure Guidelines

Exposure Limits

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PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Form	: Liquid.
Odor	: Amine.
Color	: Colorless to Amber.
Solubility in Water	: High to Miscible

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and recommended storage conditions

Conditions to Avoid

Reducing agents; Oxidizing agents; Bases; Acids; Strong Acids; Strong Oxidizers; Inert gases; Direct Sunlight.

Incompatibility with Other Materials

Reducing agents; Oxidizing agents; Bases; Acids; Strong Acids; Strong Oxidizers; Inert gases; Direct Sunlight.

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(STABILITY AND REACTIVITY - Continued)

Decomposition

Carbon monoxide (CO); Nitrogen oxides; Carbon dioxide;
water; Various hydrocarbons

Polymerization

Does not normally polymerize significantly.

TOXICOLOGICAL INFORMATION

Animal Data

>>>Proprietary Ingredient(s)
Skin absorption LD50: ~ 4,700 mg/kg in rabbits
Oral LD50:~1,680 mg/kg in rats.

DISPOSAL CONSIDERATIONS

Waste Disposal

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

Container Disposal

Contaminated Items:
Empty product containers, contaminated clothing and cleaning
materials, etc. should be considered hazardous until
decontaminated or properly disposed of. (See Waste Disposal
Section.).

OTHER INFORMATION

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 : HD MicroSystems(TM)
Address : Chesapeake Road
Parlin NJ
Telephone : 1-800-346-5656

Indicates updated section.

End of MSDS