

Material Safety Data Sheet



PA-400R

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Revised 19-NOV-2008

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CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Tradenames and Synonyms

Polyimide Ancillary.

Company Identification

MANUFACTURER/DISTRIBUTOR

HD Microsystems
Cheesequake Road
Parlin
New Jersey
USA
08859

PHONE NUMBERS

Product Information : (800) 346-5656
Transport Emergency : (800) 424-9300 (Outside the US (703)
527-3887)
Medical Emergency : (800) 441-7515 (Outside the US (302)
774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
	108-65-6	
Propylene Glycol Monomethyl Ether Acetate		95-100
d-Limonene	5989255	<5

HAZARDS IDENTIFICATION

Potential Health Effects

This product is a physical mixture. The health effects information about this product is based on the individual ingredients:

<<<PGMEA

Skin contact may initially include: skin irritation with discomfort or rash. Eye contact may initially include: eye irritation with discomfort, tearing, or blurring of vision. Inhalation may initially include: nonspecific discomfort, such as nausea, headache, or weakness. Prolonged excessive inhalation exposures may cause irritation of the upper respiratory passages, with coughing and discomfort. Data to evaluate the skin permeation hazard of this compound are insufficient. There are no reports of human sensitization.

<<<d-Limonene

Short-term overexposure:

Inhalation may cause irritation of the nose and throat with sneezing, sore throat or runny nose.

Skin overexposure may cause irritation with itching, burning, redness, swelling or rash. There are inconclusive or unverified reports of human sensitization.

Based on animal data, ingestion may cause non-specific effects such as headache, nausea and weakness.

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.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point : 110 F (43 C)
Method : Closed Cup.

FIRE & EXPLOSION HAZARDS:

KEEP AWAY FROM SPARKS AND OPEN FLAMES. Do not smoke in area with open product;

If the product may be heated above its flashpoint during processing, remove sources of ignition such as open sparks, flames or static discharge to prevent vapor ignition.

Extinguishing Media

Water Spray, Dry Chemical, Carbon Dioxide.

Fire Fighting Instructions

Wear 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.); Wear a full facepiece, positive pressure, self-contained breathing apparatus (SCBA); Decontaminate contaminated clothing and equipment with soap and water. Dispose of residues per federal, state, and local regulation. (See Waste Disposal 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.

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus.

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.).

HANDLING AND STORAGE

Handling (Personnel)

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

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation.

Personal Protective Equipment

Respiratory Protection:

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.. 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/MESA approved respirators;

Gloves:

Gloves should be used when the possibility of skin contact exists; The suitability of a particular glove and glove material should be determined as part of an overall glove program. Considerations may include chemical breakthrough time; permeation rate; abrasion, cut and puncture resistance; flexibility; duration of contact; etc.

Other Protection Practices:

Appropriate eye protection such as chemical splash goggles should be used if the possibility of eye contact exists; Protective outer clothing should be used where the possibility of body contact exists. Contaminated work clothing should not be allowed out of the workplace; Do not smoke, consume or store food or drinks in areas where the product is handled or stored. After handling the product, wash hands thoroughly before leaving the work area; Additional engineering controls, work practices and training may be required depending on exposure levels. These are discussed in the OSHA Respiratory Protection Standard (29 CFR 1910.134) and OSHA Hazard Communication Standard (29 CFR 1910.1200); Do not breath dust. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

Exposure Guidelines

Applicable Exposure Limits

Propylene Glycol Monomethyl Ether Acetate
PEL (OSHA) : None Established
TLV (ACGIH) : None Established
AEL * (DuPont) : 100 ppm, 15 minute TWA
WEEL (AIHA) : 50 ppm, 8 Hr. TWA

* 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

Form : Liquid.
Color : Colorless.
Solubility in Water : Moderately soluble
Odor : (mild), Fruity.

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.

Decomposition

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

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

<<<PGMEA
Inhalation LC50: no information found
Skin absorption LD50: 5000 mg/kg in rabbits
Oral LD50: 8532 mg/kg in female rats

<<<d-Limonene
Oral LD50: 4,400 mg/kg in rats
Dermal LC50: > 5,000 mg/kg in rats
Inhalation 4 hour ALC: > 4.0 mg/L in rats

ECOLOGICAL INFORMATION

Ecotoxicological Information

No information is available.

DISPOSAL CONSIDERATIONS

Waste Disposal

Components of this product may be considered hazardous;
Consult applicable Federal, State, and local
regulations for allowable disposal methods.

Container Disposal

Empty product containers should be considered hazardous
until decontaminated or properly disposed of. (See Waste
Disposal Section.).

TRANSPORTATION INFORMATION

Shipping Information

ICAO
UN No. : UN 1263
Proper Shipping Name : Paint Related Material
Hazard Class : 3
Packing Group : III

REGULATORY INFORMATION

U.S. Federal Regulations

All Ingredients in This Product are TSCA Listed/Reported.

No ingredients of this product are subject to the reporting
requirements of section 313 of Title III of the Superfund
Amendment and Reauthorization Act of 1986 and 40 CFR part
372.

State Regulations (U.S.)

WARNING - SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE
CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM-
n-Methylpyrrolidone

CALIFORNIA PROPOSITION 65: WARNING: This product does not
contain chemicals known to the state of California to cause
cancer, birth defects, or other reproductive harm.

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 : Cheesequake Road
Parlin, New Jersey 08859
Telephone : (800) 346-5656

Indicates updated section.