

**ENTIRA™ AS MK400 resin**

Version 2.1

Revision Date 07/19/2011

Ref. 130000034826

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ENTIRA™ AS MK400 resin
MSDS Number : 130000034826

Manufacturer : DuPont
1007 Market Street
Wilmington, DE 19898

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency : CHEMTREC: 1-800-424-9300 (outside the U.S. 1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION

Potential Health Effects

Processing temperatures that exceed those described in Section 10 (Conditions to Avoid), may evolve fumes irritating the eyes, nose and throat., Exposure may result in reddening, tears and itching of the eyes and soreness in the nose and throat, together with coughing.

Eyes : Resin particles, like other inert materials, are mechanically irritating to eyes.

Ingestion : Is not considered a potential route of exposure.

Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
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Ethylene methacrylic acid copolymers, partial potassium salts		>80%
Ethylene Copolymer		<20 %

SECTION 4. FIRST AID MEASURES

- Skin contact : The material is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. Cool skin rapidly with cold water after contact with molten material. Do not attempt to remove material from the skin. Obtain medical treatment for thermal burn. 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.
- Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- Ingestion : Not a probable route of exposure. However, in case of accidental ingestion, call a physician.

SECTION 5. FIREFIGHTING MEASURES

- Flammable Properties
Flash point : no data available
- Fire and Explosion Hazard : Material in pellet form may accumulate static charge when poured from one container to another.
- Suitable extinguishing media : Water, Foam, Dry chemical, Carbon dioxide (CO₂)
- Firefighting Instructions : Wear self-contained breathing apparatus and protective suit. The solid polymer can only be burned with difficulty. Evacuate personnel and keep upwind of fire. Grounding and elimination of the static charge is recommended.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Cleanup : Shovel or sweep up.

Accidental Release Measures : Do not discharge to streams, ponds, lakes or sewers.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel) : Before using, read the product bulletin.

Storage : Store in a cool, dry place. Keep container closed to prevent contamination.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Use sufficient ventilation to keep employee exposure below recommended limits. When hot processing this material, use local and/or general exhaust ventilation to maintain the concentration of vapors and fumes below exposure limits. Use static controls. Static charges can cause explosions in solvent and dust laden atmospheres. See Bulletin "Proper Use of Local Exhaust Ventilation During Processing of Plastics".

Personal protective equipment
Respiratory protection : A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
Consult the OSHA respiratory protection information located at 29CFR 1910.134.

Hand protection : Additional protection: Protective gloves



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Eye protection : Wear safety glasses with side shields. Wear tightly fitting chemical splash goggles and face shield when possibility exists for eye and face contact due to spattering or splashing of molten material.

Skin and body protection : If there is a potential for contact with hot/molten material wear heat resistant clothing and footwear.

Exposure Guidelines

Exposure Limit Values

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Dust (inhalable and respirable fraction)

TLV (ACGIH)

10 mg/m³

TWA Inhalable particles.

3 mg/m³

TWA Respirable particles.

PEL: (OSHA)

5 mg/m³

TWA Respirable fraction.

Remarks

All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.

15 mg/m³

TWA Total dust.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : solid
 Color : clear or pigmented
 Odor : mild, like methacrylic acid
 Specific gravity : < 1
 Water solubility : negligible

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SECTION 10. STABILITY AND REACTIVITY

- Stability : Stable at normal temperatures and storage conditions.
- Conditions to avoid : Temperature > 300 °C (> 572 °F)
Decomposes on heating.
- Incompatibility : Oxidizing agents
- Hazardous decomposition products : Decomposition is a function of both processing temperature and time at that temperature.
Decomposition can occur below the recommended processing temperature limit.
At temperatures above the "conditions to avoid" temperature, thermal decomposition of the resin becomes rapid.
Hazardous decomposition products: Carbon monoxide, Organic acids, Aldehydes, Alcohols , Potassium
- Hazardous reactions : Polymerization will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

- ENTIRA™ AS MK400 resin
Further information : No data is available on the product itself. The substance is a polymer and is not expected to produce toxic effects.

SECTION 12. ECOLOGICAL INFORMATION

- Additional ecological information : No data is available on the product itself. Toxicity is expected to be low based on insolubility in water.

SECTION 13. DISPOSAL CONSIDERATIONS

- Waste Disposal : Preferred options for disposal are recycling, incineration with energy recovery,

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and landfill. The high fuel value of this product makes incineration very desirable for material that cannot be recycled. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA Status	: In compliance with TSCA Inventory requirements for commercial purposes.
NZ HSNO Status	: Exempt
SARA 313 Regulated Chemical(s)	: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
California Prop. 65	: Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known
PA Right to Know Regulated Chemical(s)	: Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): None known.
NJ Right to Know Regulated Chemical(s)	: Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): None known.

SECTION 16. OTHER INFORMATION

Restrictions for use : Do not use DuPont materials in medical applications involving implantation



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in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of the DuPont POLICY Regarding Medical Applications H-50103-3 and DuPont CAUTION Regarding Medical Applications H-50102-3.

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