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DuPont
Material Safety Data Sheet

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"ELVALOY" RESIN MODIFIERS ALL IN SYNONYM LIST LOY006
LOY006 Revised 21-JUN-2006

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"ELVALOY" is a registered trademark of DuPont.

Tradenames and Synonyms

"ELVALOY" AM, AM-L, AS, EP1001, EP1002, GMB
"ELVALOY" 4170, 4170LW
"ELVALOY" EP1032, EP1085, #
"ELVALOY" XEP 225
EP1052, EP1052-2,

Company Identification

MANUFACTURER/DISTRIBUTOR

DuPont Packaging & Industrial Polymers
1007 Market Street
Wilmington, DE 19898

PHONE NUMBERS

Product Information : 1-(800)-441-7515
Transport Emergency : 1-(800)-424-9300
Medical Emergency : 1-(800)-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
ETHYLENE ACRYLATE COPOLYMER		>99
NON-REGULATED ADDITIVES		<1
N-BUTYL ACRYLATE	141-32-2	<0.4
GLYCIDYL METHACRYLATE	106-91-2	<0.4

Components (Remarks)

Material is not known to contain Toxic Chemicals under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

HAZARDS IDENTIFICATION

Potential Health Effects

ADDITIONAL HEALTH EFFECTS

ACUTE OR IMMEDIATE EFFECTS - ROUTES OF ENTRY AND SYMPTOMS

INGESTION There is no information on the ingestion toxicity of these resins. Ingestion is not a probable route of exposure. Toxicity is predicted to be low.

SKIN Prolonged or repeated skin contact may cause skin irritation including redness, itching and in extreme cases blisters. Molten polymer contacting the skin will cause thermal burns.

EYE Mechanical irritation only.

INHALATION At processing temperatures above 280 C (536 F), fumes irritating to the eyes, nose and throat may be produced. This exposure may result in redness, tearing and itching of the eyes and soreness in the nose and throat together with coughing.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE None known.

N-BUTYL ACRYLATE

INHALATION

Immediate effects of overexposure may include: Irritation of the nose and throat with sneezing, sore throat or runny nose.

SKIN CONTACT

Immediate effects of overexposure may include: Irritation with itching, burning, redness, swelling or rash. Skin sensitization with allergic rashes. Skin permeation may occur in amounts capable of producing the effects of systemic toxicity. The compound has been infrequently associated with skin sensitization in humans.

EYE CONTACT

Immediate effects of overexposure may include: Eye irritation with tearing, pain or blurred vision.

ADDITIONAL HEALTH EFFECTS

Increased susceptibility to the effects of this material may be observed in persons with pre-existing disease of the skin.

GLYCIDYL METHACRYLATE

(HAZARDS IDENTIFICATION - Continued)

Skin contact with Glycidyl Methacrylate may cause skin burns or ulceration; or allergic skin rashes. Evidence suggests that skin permeation can occur in amounts capable of producing the effects of systemic toxicity. There are inconclusive or unverified reports of human sensitization.

Eye contact with Glycidyl Methacrylate may cause eye corrosion with corneal or conjunctival ulceration.

Higher exposures by inhalation to Glycidyl Methacrylate may cause irritation of the upper respiratory passages, with coughing and discomfort.

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 exposed to fumes from overheating or combustion, move to fresh air. Consult a physician if symptoms persist.

SKIN CONTACT

In case of contact, immediately wash skin with soap and water. Wash contaminated clothing before reuse. If molten material gets on skin, cool rapidly with cold water. Do not attempt to remove material from skin. Obtain medical treatment for thermal burn.

INGESTION

Not a probable route. However, in case of accidental ingestion, call a physician.

EYE CONTACT

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

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point : 430 C (806 F) Setchkin
Method : Apparatus

Fire and Explosion Hazards:

UNUSUAL FIRE, EXPLOSION HAZARDS The solid polymer can be combusted only with difficulty. An electrostatic charge can potentially build up when pouring pellets. Grounding of equipment is recommended.

HAZARDOUS COMBUSTION PRODUCTS Complete combustion gives carbon dioxide and water. Incomplete combustion gives, in addition, carbon monoxide and hydrocarbon oxidation products including organic acids, aldehydes and alcohols, oxides of nitrogen.

Extinguishing Media

Water, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus (SCBA) and full protective equipment.

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

Sweep up to avoid slipping hazard.

HANDLING AND STORAGE

Handling (Personnel)

See FIRST AID and PERSONAL PROTECTIVE EQUIPMENT SECTIONS.

Storage

Store in a cool, dry place. Keep containers tightly closed to prevent moisture absorption and contamination.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

VENTILATION When hot processing this material, use local and/or general exhaust ventilation to control the concentration of vapors and fumes below exposure limits.

In cutting or grinding operations with this material, use local exhaust to control the concentration of dust below exposure limits.

Local ventilation is required over processing equipment to keep the concentration of gases which are irritating to the eyes and upper respiratory system below recommended values.

Personal Protective Equipment

EYE/FACE PROTECTION

Wear safety glasses. Wear coverall chemical splash goggles and face shield when possibility exists for eye and face contact due to splashing or spraying of molten material. A full face mask respirator provides protection from eye irritation.

RESPIRATORS

A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge with a dust/mist filter 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, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

PROTECTIVE CLOTHING

If there is potential contact with hot/molten material, wear heat resistant clothing and footwear.

Exposure Guidelines

Exposure Limits

"ELVALOY" RESIN MODIFIERS ALL IN SYNONYM LIST LOY006
PEL (OSHA) : Particulates (Not Otherwise Regulated)
15 mg/m³, 8 Hr. TWA, total dust
5 mg/m³, 8 Hr. TWA, respirable dust

Other Applicable Exposure Limits

N-BUTYL ACRYLATE

PEL (OSHA) : None Established
TLV (ACGIH) : 2 ppm, 8 Hr. TWA, A4, SEN
AEL * (DuPont) : 2 ppm, 8 & 12 Hr. TWA, Skin

GLYCIDYL METHACRYLATE

PEL (OSHA) : None Established
TLV (ACGIH) : None Established
AEL * (DuPont) : 1 ppm, 8 & 12 Hr. TWA, Skin
WEEL (AIHA) : 0.5 ppm, 8 Hr. TWA, Skin, SEN

* 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

% Volatiles : Negligible
Solubility in Water : Negligible
Odor : Mild acrylate-like
Form : Pellets
Color : Grey
Specific Gravity : NA

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Conditions to Avoid

Temperatures above 280 C (536 F) .

Incompatibility with Other Materials

None reasonably foreseeable.

Decomposition

Decomposes with heat.

Decomposition temperature - For the resin as shipped, greater than 280 C (536 F) as defined by TGA weight loss of less than 1 percent in air. Decomposition behavior may be affected through customer use of stabilizers or other ingredients.

HAZARDOUS DECOMPOSITION PRODUCTS Carbon monoxide and hydrocarbon oxidation products including organic acids, aldehydes and alcohols, oxides of nitrogen.

(STABILITY AND REACTIVITY - Continued)

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

N-BUTYL ACRYLATE

EYE:

Animal testing indicates this material is a mild to moderate eye irritant.

SKIN:

LD50, rabbit: 1,780 mg/kg (Moderately toxic).

Animal testing indicates this material is a mild skin irritant, and is a skin sensitizer.

INGESTION:

LD50, rat: 6,170 mg/kg (Very low toxicity).

Repeated exposure caused: Decreased body weight. Increased liver weight.

INHALATION:

4 hour, LC50, rat: 2,636 ppm (Slightly toxic).

Repeated exposure caused: Histopathological changes of the nasal cavity. Upper respiratory tract irritation. Decreased body weight. Increased liver weight. Long-term exposure caused: Upper respiratory tract irritation. Clouding of the eye (corneal opacity).

ADDITIONAL TOXICOLOGICAL EFFECTS:

In animal testing this material has not caused carcinogenicity. Animal data show developmental effects only at exposure levels producing other toxic effects in the adult animal. No animal data are available to define the following effects of this material: reproductive toxicity. Tests have shown that this material does not cause genetic damage in bacterial or mammalian cell cultures, or in animals. This material has not been tested for its ability to cause permanent genetic damage in reproductive cells of mammals (not tested for heritable genetic damage).

Glycidyl Methacrylate

Inhalation 4 hour LC50: 45 ppm in rats

(TOXICOLOGICAL INFORMATION - Continued)

Skin absorption LD50: 484 mg/kg in rabbits
Oral LD50: 828 mg/kg in rats

Glycidyl Methacrylate is corrosive to skin and eyes, and is a skin sensitizer in animals.

The effects in animals from single inhalation exposure to Glycidyl Methacrylate include irritation of the respiratory tract, body weight loss, pathological changes in the lungs, testes, and trachea. Repeated exposures produced decreased body weight gain, respiratory irritation and alterations of hematological parameters. Long term exposure produced minimal effects on the body organs and no alteration of hematological parameters.

Repeated applications of Glycidyl Methacrylate on the skin of rabbits produced inflammation and necrosis.

Administration of single oral doses of Glycidyl Methacrylate in animals produced gastritis. Repeated dosing resulted in growth inhibition and kidney weight changes. Long term dosing produced no treatment related increase in tumors.

Tests in animals with Glycidyl Methacrylate demonstrate no carcinogenic activity. Tests in animals with Glycidyl Methacrylate show maternal toxicity but no evidence of developmental toxicity. No animal test reports are available to define reproductive hazards.

Glycidyl Methacrylate does produce genetic damage in bacterial and mammalian cell cultures; there are also reports in the literature of some negative tests in mammalian cell cultures.

ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

No information is available. Do not discharge to streams, ponds, lakes or sewers.

N-BUTYL ACRYLATE

AQUATIC TOXICITY:

Moderately toxic.

96 hour LC50 - Rainbow trout: 5.2 mg/L

DISPOSAL CONSIDERATIONS

Waste Disposal

Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill. The high fuel value of this product makes option 2 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.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO/IATA
Not Regulated.

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : In compliance with TSCA Inventory requirements for commercial purposes.

State Regulations (U.S.)

STATE RIGHT-TO-KNOW LAWS

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet.

SUBSTANCES ON THE PENNSYLVANIA HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 1% OR MORE (0.01% FOR SPECIAL HAZARDOUS SUBSTANCES): None known.

WARNING: SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM: None known.

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.

