

DuPont
Material Safety Data Sheet

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"SURLYN" IONOMER RESIN ALL IN SYNONYM LIST EURO01
EURO01 Revised 22-OCT-1993 Printed 22-OCT-1993

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

"SURLYN" is a registered trademark of DuPont.

Tradenames and Synonyms

"SURLYN" AD8110SB, AD8112SB, AD8113, AD8118-1, AD8119,
"SURLYN" AD8123SB, AD8124, AD8133, AD8134SE, AD8137SBR,
"SURLYN" AD8144, AD8145SB, AD8162, AD8163, AD8172, AD8206,
"SURLYN" AD8255, AD8273, AD8279, AD8281SB, AD8396-2,
"SURLYN" AD8404-1, AD8413, AD8414-1, AD8422-2, AD8422-3,
"SURLYN" AD8422-5, AD8422-6, AD8423SB, AD8424SB, AD8427-1,
"SURLYN" AD8441, BR-1, CFM, CFM-2, CS8757, CS8791,
"SURLYN" E195SB, E187SB, F1605,
"SURLYN" LMG1, LTAD8111, NWL, PC100, PK101, RX74, RX8422-4 #
"SURLYN" SH1, SPF-1, SPF-2, SEM-1, TP1, WP1, 1554P, 1601,
"SURLYN" 1601-2, 1601-2HB, 1601-2LM, 1601ACA, 1601B, 1601B-2
"SURLYN" 1601LM, 1601S, 1601SB, 1601T, 1605, 1605SBR, 1650,
"SURLYN" 1650SB, 1652, 1652-1, 1652-1HS, 1652R, 1652R-1,
"SURLYN" 1652SB, 1652SB-CT, 1652SB-1, 1652SBR, 1652SR,
"SURLYN" 1652SR-1, 1702, 1702-1, 1702LM, 1702SBR-1, 1705,
"SURLYN" 1705-1, 1706, 1707, 1707-2, 1801, 1802, 1855, 1856,
"SURLYN" 7207, 8020, 8110SB-1, 8220, 8240, 8396-2, 8527,
"SURLYN" 8528, 8528P, 8533, 8534, 8550, 8660, 8560P, 8920,
"SURLYN" 8920P, 8921, 8940, 8940DC, 8940P, 8941, 8941EB,
"SURLYN" 8941P, 9020, 9020P, 9220, 9450, 9450P, 9520, 9520P,
"SURLYN" 9533, 9650, 9720, 9721, 9730, 9910, 9910BS, 9950,
"SURLYN" 9970, 9970FP, 9970P

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

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COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	
ETHYLENE/METHACRYLIC ACID COPOLYMERS, PARTIAL SODIUM OR ZINC SALT		1 >99
*ZINC COMPOUNDS (SOME COPOLYMERS)	7440-66-6	<5

* Regulated as a Toxic Chemical 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

Before using "Surlyn" Ionomer Resins, read the bulletin on the safe handling of these polymers.

No information available for this "Surlyn" ionomer resin or for the ethylene/methacrylic acid copolymer partial metal salt. Based on its similarity to other polymers, this "Surlyn" resin is predicted to have low toxicity.

INGESTION

Not a probable route of exposure. Toxicity is predicted to be low for all types but feeding tests have been conducted only on two sodium ionomers. No pathologic changes in any organ were seen in 90 day feeding tests with rats and dogs.

SKIN

No data are available. However, based on experience with handling these polymers, no unusual dermatitis problem is expected from routine handling. Molten polymer contacting the skin will cause thermal burns.

EYE

„Mechanical irritation only.

INHALATION

Polymer is not respirable as sold. At processing temperatures above 325 deg C, fumes irritating to the eyes, nose and throat may be evolved. Exposure may result in redness, itching and tearing of the eyes and soreness in the nose and throat together with coughing.

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(HAZARDS IDENTIFICATION - Continued)

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

The compound is not likely to be hazardous by skin contact but cleansing the skin after use is advisable.

EYE CONTACT

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

INGESTION

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

FIRE FIGHTING MEASURES

Flammable Properties

Fire and Explosion Hazards:

The solid polymer can be combusted only with difficulty.

Hazardous gases/vapors produced in fire are carbon monoxide and hydrocarbon oxidation products including organic acids, aldehydes and alcohols, and zinc or sodium oxides.

Extinguishing Media

Water, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus.

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(FIRE FIGHTING MEASURES - Continued)

Use self-contained breathing apparatus if exposed to fumes.

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

Recover undamaged and minimally contaminated material for reuse and reclamation.

Accidental Release Measures

Sweep up to avoid slipping hazard.

HANDLING AND STORAGE

Handling (Personnel)

See FIRST AID and PROTECTION INFORMATION SECTIONS

Storage

Store in a cool dry place. Keep containers closed to prevent contamination.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

VENTILATION Local exhaust ventilation should be used over processing equipment.

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 canister may be permissible under certain circumstances where airborne

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(EXPOSURE CONTROLS/PERSONAL PROTECTION - Continued)

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

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PEL (OSHA)	: Particulates (Not Otherwise Classified) 15 mg/m ³ , 8 Hr. TWA, total dust 5 mg/m ³ , 8 Hr. TWA, respirable dust
TLV (ACGIH)	: None Established

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Melting Point	: 80-100 C (176-212 F)
% Volatiles	: Negligible
Solubility in Water	: Negligible
Odor	: Mild methacrylic acid
Form	: Pellets
Color	: White
Specific Gravity	: NA

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility with Other Materials

Incompatible with oxidizing agents.

Decomposition

Decomposes with heat.

Decomposition temperature: 325 C (617 F)

toxic gases/vapors produced are carbon monoxide and carbon oxidation products including organic acids, and alcohols.

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(STABILITY AND REACTIVITY - Continued)

Polymerization

Polymerization will not occur.

ECOLOGICAL INFORMATION-----
Ecotoxicological Information

Aquatic Toxicity

No information. Toxicity is expected to be low based on negligible water solubility.

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

Proper Shipping Name : Not regulated

REGULATORY INFORMATION-----
U.S. Federal Regulations

TSCA Inventory Status : Listed.

OTHER INFORMATION-----
Additional Information

MEDICAL USE: CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications see DUPONT CAUTION Bulletin No. H-50102.

STATE RIGHT-TO-KNOW LAWS