

## SAFETY DATA SHEET

### SEC. 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	: Evaflex™
Product Use	: Polymer
Restriction on use	: For manufacturing and research only
Product Number	: Please see the separate sheet.
Manufacturer/Supplier	: Dow-Mitsui Polychemicals Company Ltd. 5-2, Higashi-shimbashi 1-Chome, Minato-ku, Tokyo, 105-7122, Japan
Product Information	: TEL 03-6253-4040, FAX 03-6253-4262 (Product Safety Group)
Ref.: 1001, Ver.: 10	

### SEC. 2: HAZARDS IDENTIFICATION

Product hazard	: Not required
Label content	: Not required
Other hazards	: If small particles are generated during further processing, handling or by other means, may form combustible dust concentration in air.

Polymer is not respirable as solid.  
At processing temperatures above 204 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.

### SEC. 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Materials</u>	<u>ENCS/ISHL No.</u>	<u>CAS No.</u>	<u>Contents(%)</u>
Ethylene/ Vinyl Acetate copolymer	(6)-6	24937-78-8	>=99
Additives	Not disclosed	Not disclosed	0-1

(Some product names contain additives like antioxidants, stabilizers, release agents and so forth.)

### SEC. 4: FIRST AID MEASURES

General advice	: No applicable data available.
Inhalation	: No specific intervention is indicated as 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.
Most important symptoms/effects, acute and delayed	: No applicable data available.
Protection of first-aiders	: No applicable data available.
Notes to physician	: No applicable data available.

## SEC. 5: FIRE FIGHTING MEASURES

Suitable extinguishing media	: Water, Foam, Dry chemicals, Carbon dioxide(CO <sub>2</sub> )
Unsuitable extinguishing	: No applicable data available media
Flammable properties	: Flash point 205~285 deg C (401~545 F) Method Cleveland (Open cup)
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.
Fire fighting instructions	: Keep personnel removed and upwind of fire. Use self-contained breathing apparatus if exposed to fumes.

## SEC. 6: ACCIDENTAL RELEASE MEASURES

Spill clean up	: Recover undamaged and minimally contaminated material for reuse and reclamation.
Accidental release measures	: Sweep up to avoid slipping hazard

## SEC. 7: HANDLING AND STORAGE

Handling (Personnel)	: Please see SECTION 4 and SECTION 8.
Storage	: Store in a cool, dry place. Avoid high pressures and temperatures above 50 deg C to prevent material from blocking. Especially, VA cont. >25% and/or MFR >50g/10min grades keep the room temperatures under 30deg C. Keep containers closed to prevent contamination.

## SEC. 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	
Ventilation	: Local exhaust ventilation should be used over processing equipment.
Personal protective equipment	
Eye	: Safety glasses are recommended as good industrial practice. Glasses are necessary when working with molten polymer.
Skin	: Protective gloves and long sleeve shirt when handling hot polymer to avoid skin contact.
Respiratoes	: Not required if local ventilation is adequate.
[EXPOSURE LIMITS ABOUT PARTICULATES ARE DESCRIBED IN SEC.14.]	

## SEC. 9: PHYSICAL AND CHEMICAL PROPERTIES

Form	: Pellets
Color	: Translucent to white
Odor	: Mild ester-like
Specific Gravity (Kg/m <sup>3</sup> )	: 930~980 kg/m <sup>3</sup> (Method: JIS K 7112)
Softening Point (deg C)	: Below 87 (Method : Vicat)
Solubility in Water	: Negligible

## SEC.10: STABILITY AND REACTIVITY

Chemical stability	: Stable at normal temperatures and storage conditions.
Incompatibility with other materials	: None reasonably foreseeable.
Decomposition	: Decomposes with heat.
Polymerization	: Polymerization will not occur.

## SEC. 11: TOXICOLOGICAL INFORMATION

### Animal Data:

#### <Vinyl acetate>

Inhalation 4 hour LC <sub>50</sub> VV	: 4000 ppm in rats
Skin absorption LD <sub>50</sub>	: 2335 mg/kg in rabbits
Oral LD <sub>50</sub>	: 2920 mg/kg in rats

Vinyl Acetate is a slight skin and a severe eye irritant, and a weak skin sensitizer in animals. No effects from repeated exposure to Vinyl Acetate by inhalation were observed at 100 ppm in rats. Exposure to higher concentrations of Vinyl Acetate by inhalation caused eye irritation and lacrimation, reduced weight gain, and irritation of the respiratory tract with breathing difficulty. The effects observed in rats and mice exposed by inhalation to 200 and 600 ppm for two years include reduced body weight, and pathological changes in the nose and respiratory tract. Nasal cavity tumors were observed in rats but not in mice. Research on the mechanism of nasal tumor induction in rats suggests that levels at which humans are likely to be exposed are below the threshold for effects that contribute to tumor formation. Vinyl Acetate is not a developmental toxin in animals. the effect of Vinyl Acetate on reproduction in animals is not considered significant. Genetic damage was produced in some types of cell cultures and in animals, but was negative in other studies. No tests for heritable genetic damage were available.

## SEC. 12: ECOLOGICAL INFORMATION

Aquatic toxicity	: No information. Toxicity is expected to be low based on negligible water solubility.
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## SEC. 13: DISPOSAL INFORMATION

Waste disposal	: Preferred options for disposal are as follows (e.g.) . 1) recycling 2) incineration with energy recovery 3) landfill
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The high fuel value of this resin makes option 2) desirable for material that cannot be recycled. These treatments must be in accordance with applicable federal, state/provincial, and local regulations.

#### SEC. 14: TRANSPORT INFORMATION

Not classification as dangerous in meaning of transport regulations.

IATA : Not restricted.

#### SEC. 15: REGULATORY INFORMATION

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

#### SEC. 16: OTHER INFORMATION

Medicaluse : It is prohibited to use this material for medical applications in which the material is used for a permanent implantation in the human body or a permanent contact with internal body fluids or tissues.

(In this case, "permanent" means residing for more than 30 days.)

If our material are used for a temporary implantation in the human body or a temporary contact with internal body fluids or tissues in medical applications, you must make prior consultations with persons in charge at Dow-Mitsui Polychemicals Co., Ltd..

(In this case, "temporary" means above 24 hours below 30 days.)

Exposure limits : PEL(OSHA) Particulates (Not otherwise regulated)

Respirable dust (8HR. TWA) 5 mg/m<sup>3</sup>

Total dust (8HR. TWA) 15 mg/m<sup>3</sup>

THIS MATERIAL SAFETY DATA SHEET (SDS) WAS COMPLIED WITH MUCH CARE BASED ON Dow-Mitsui EXPERTISE, BUT IT MAY BE REVISED DUE TO NEW EXPERTISE, TESTS AND OTHERS.

WHILE THE DESCRIBED CONTENTS ARE GUARANTEED IN THE NORMAL CONDITION OF USE, SAFETY AND HEALTH ARE NOT GUARANTEED UNDER SPECIAL CONDITIONS OR IN COMBINATION WITH ANY MATERIAL.

WHEN YOU USE THIS MATERIAL, Dow-Mitsui ASK YOU TO COMPLY WITH THE APPLICABLE LAWS AND READ THIS SDS FOR YOUR INFORMATION.

IT IS ALSO IMPORTANT FOR HANDLING THE MATERIAL IN A WAY FIT FOR YOUR COMPANY TO KEEP SAFETY.

THE DATA WRITTEN IN THIS MSDS ARE NOT GUARANTEED VALUES,BUT REPRESENTATIVE VALUES.