SAFETY DATA SHEET

Date November 27, 2013

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Opulent Single-Layered Film (TPX film)

USE OF PRODUCT : industrial materials (release film, etc.)

Quality Assurance Department Mitsui Chemicals Tohcello, Inc. 7, Kanda Mitoshiro-cho, Chiyoda-ku, Tokyo Japan

Telephone: +81-3-6895-9310 Telefax: +81-3-6895-5903

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW :

Odorless, clear or translucent, colorless film. Can burn in a fire.

No specific hazard identified.

POTENTIAL HEALTH EFFECTS

Route(s) of Entry: Ingestion

INHALATION :

Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to respiratory tract.

INGESTION :

Polymers are expected to be physiologically inert and not to cause any acute toxicological effects.

SKIN CONTACT:

No specific hazard identified.

EYE CONTACT :

No specific hazard identified.

CARCINOGENICITY:

NTP : Not listed. IARC : Not listed. OSHA : Not regulated.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

No information found.

COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	િ	CAS No.	EC No.
4 -methyl-1-pentene α -olefin	>99	_	_
copolymer			
Additives	<1	_	_

Classification according to EC regulations This product is not classified according to the EC regulations.

* Occupational exposure limits are, if available, listed in Section 8.

4. FIRST AID MEASURES

INHALATION :

If exposed to excessive levels of fumes, remove to fresh air. Get medical attention if cough or other symptoms develop.

EYE CONTACT :

Immediately flush eyes with plenty of water. Check for and remove contact lenses if easily possible. Get medical attention if irritation persists.

SKIN CONTACT :

None normally needed.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSIVE PROPERTIES: See Section 9.

EXTINGUISHING MEDIA: water fog, foam, dry chemical, CO2 EXTINGUISHING MEDIA WHICH MUST NOT BE USED: Not available.

GENERAL HAZARD :

Combustible at high temperatures. Emits toxic fumes under fire conditions.

FIRE FIGHTING INSTRUCTIONS

Keep unnecessary and unprotected personnel away. Remove containers to safe place if possible. Keep surrounding areas cool by spraying water. Fight fire from an upwind position.

FIRE FIGHTING EQUIPMENT:

Respiratory and eye protection required for fire-fighting personnel.

Full protective equipment and self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires.

HAZARDOUS COMBUSTION PRODUCTS : Carbon oxides.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Follow good industrial hygiene practices. Remove all sources of ignition.

ENVIRONMENTAL PRECAUTIONS:

Do not let this chemical enter the environment.

CLEAN-UP METHODS:

Pick up spill for recovery or disposal and place in closed container.

7. HANDLING AND STORAGE

HANDLING

Technical Measures:

Use in well-ventilated area. Keep away from heat, sparks, Take precautions against build-up and flame. electrostatic charges.

If user operations generate dust, wear appropriate personal protective equipment. Provide hand and eye wash station near work area. Wash thoroughly after handling.

Precautions:

Use closed system or local exhaust ventilation when handling at high temperatures.

STORAGE:

Storage Conditions:

Protect from direct sunlight. Keep away from heat, flame, and all sources of ignition.

Packaging Material: Plastics, paper, etc.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS :

Particulates (Not otherwise regulated)

OSHA-PEL 15 mg/m 3 , 8 Hr. TWA, total dust

 5 mg/m^3 , 8 Hr. TWA, respirable dust

Particulates (Not otherwise specified)

ACGIH-TLV 10 mg/m^3 , 8 Hr. TWA, inhalable

3 mg/m 3 , 8 Hr. TWA, respirable

ENGINEERING CONTROLS :

Provide general ventilation. Use closed system or local exhaust ventilation when handling at high temperatures. Provide safety shower and eye wash station near work area.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection:

None normally needed. In dusty atmospheres, use approved

dust respirator.

Hand protection : Protective gloves.
Eye protection : Safety glasses.

Protective clothing: Safety helmet, protective clothing,

safety boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Clear or translucent, colorless film.

ODOR : Odorless.

pH : Not applicable.

MELTING POINT : 220-240 °C FLASH POINT : >200 °C

EXPLODABILITY : Not available.
SPECIFIC GRAVITY : 0.83-0.84

SPECIFIC GRAVITY: 0.83-0.84 SOLUBILITY IN WATER: Negligible.

10. STABILITY AND REACTIVITY

STABILITY: Stable at room temperature for normal storage and handling.

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID :

Heat, strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides.

HAZARDOUS POLYMERIZATION : Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Not available. LOCAL EFFECTS: Not available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Not available. PERSISTENCY/DEGRADABILITY: Not available.

13. DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES :

Whatever cannot be saved for recovery may be burned in an approved incinerator or disposed in approved waste facility. Ensure compliance with local, state, federal and national regulations.

CONTAMINATED PACKAGING :

Empty the container completely before disposal.

14. TRANSPORT INFORMATION

UN Class : Not a hazardous material.

UN Number : None.

15. REGULATORY INFORMATION

UNITED STATES

OSHA STATUS :

This product meets the definition of an article under 29 CFR 1910.1200 Hazard Communication and therefore it is exempt from its requirements.

TSCA STATUS:

This product is an article and exempt from listing on TSCA Inventory.

CERCLA REPORTABLE QUANTITY: None

SARA Title III :

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: None SECTION 311/312 HAZARDOUS CATEGORIES: Not classified. SECTION 313 TOXIC CHEMICALS:

This product is article and exempt from reporting requirement.

CALIFORNIA PROPOSITION 65:

This product contains no chemicals known to the state of California to cause cancer and reproductive toxicity.

EUROPEAN UNION

EU STATUS :

This product is an article and is exempt from listing on EINECS/ELINCS.

Labeling according to EC Directive:

This product is not classified according to the EC regulations.

16. OTHER INFORMATION

This MSDS was prepared in compliance with EU Directive 91/155/EEC as amended by 2001/58/EC and USA OSHA Hazard Communication Standard (29 CFR 1910.1200).

To the best of our knowledge, the information contained herein is accurate.

However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Appendix This Material Safety Data Sheet covers these products :

		Melting S	Specific	
Grade name	Appearance	Point(°C)	gravity	Thickness
X-44B	Clear, colorless	228	0.83	25 μm,50 μm
X-44BR	Clear, colorless	228	0.83	50 μm
X-88B	Clear, colorless	236	0.83	$50\mu\text{m}$, $100\mu\text{m}$
X-88B D	Clear, colorless	236	0.83	50 μm
X-88B N	Clear, colorless	236	0.83	50 μm
X-88BMT4	Translucent, colorless	236	0.83	50 μm, 100 μm
X-88BMT4 J	Translucent, colorless	236	0.83	50 μm
X-88BMT4 D	Translucent, colorless	236	0.83	50 μm
X-88BMT4 N	Translucent, colorless	236	0.83	50 μm
X-99BR	Clear, colorless	235	0.83	50 μm