SAFETY DATA SHEET

Date May 13, 2013

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : **TPX Pellet**

COMPANY IDENTIFICATION:
Performance Polymers Division
Mitsui Chemicals, Inc.
Shiodome City Center
1-5-2, Higashi-Shimbashi, Minato-ku
Tokyo 105-7117, Japan
Telephone: +81-3-6253-3483 Telefax: +81-3-6253-4221

Mitsui Chemicals America, Inc.
800 Westchester Avenue,
Suite N607, Rye Brook, NY 10573, USA
Telephone: +1-914-253-0777 Telefax: +1-914-253-0790

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
Colorless pellet with polyolefin odor.
Can burn in fire.
Powdered material may form explosive dust-air mixture.
Slippery, can cause falls if walked on.

OSHA STATUS (USA):
This product is not classified as hazardous under OSHA regulations.

POTENTIAL HEALTH EFFECTS:
Route(s) of Entry: Inhalation, Eye Contact, Skin Contact, Ingestion.

INHALATION:
Dust and fumes may cause irritation to respiratory system.

INGESTION:
Not available.

SKIN CONTACT:
Dust and fumes may cause irritation to skin.

EYE CONTACT:
Dust and fumes may cause irritation to eye.

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

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	%	CAS No.
4-Methyl-1-pentene α-olefin copolymer	> 99	See Appendix
Additives	< 1	-

Hazardous components according to OSHA HCS: None.

4. FIRST AID MEASURES

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

EYE CONTACT :
Immediately flush eyes with plenty of water for several minutes. Part eyelids with fingers to assure complete flushing. Check for and remove contact lenses if easily possible. Get medical attention if irritation persists.

SKIN CONTACT :
Immediately remove contaminated clothing and shoes. Flush skin with large amounts of water, clean off with soap and water. Get medical attention if symptoms develop.
If molten polymer contacts the skin, cool immediately with cold water. Do not attempt to peel polymer from the skin. Get medical attention for thermal burn.

INGESTION :
Do NOT induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Keep the affected person warm and at rest. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water jet, water fog, foam, dry chemical, CO_2.
Initial fire: dry chemical or CO_2.
Large fire: water or foam.
UNSUITABLE EXTINGUISHING MEDIA : Not specified.

FLAMMABLE PROPERTIES :
Can burn in fire. Fumes from heated molten polymer may explode or catch fire in presence of an ignition source. Powdered material may form explosive dust-air mixture.

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, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES :
Keep unnecessary and unprotected personnel away. Wear appropriate personal protective equipment as specified in Section 8. Keep upwind, evacuate downwind.

ENVIRONMENTAL PRECAUTIONS :
Do not let this chemical enter the environment. Do not flush into sewer, river or any body of water.

CONTAINMENT/CLEAN-UP METHODS :
Vacuum or sweep up material and place in a disposal container. Use non-sparking tools and equipment.
If molten polymer is spilled, allow it to cool and solidify before proceeding with disposal methods.

7. HANDLING AND STORAGE

HANDLING

Technical Measures :

Use only in well-ventilated area. Keep away from heat, sparks, and flame. Use explosion-proof electrical equipment. Take precautions against build-up of electrostatic charges.
Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wear appropriate personal protective equipment. Provide hand and eye wash station near work area. Wash thoroughly after handling.

Ventilation :

Use only under local exhaust or general ventilation.

Safe Handling Advice :

Do not handle until all safety precautions have been read and understood. Take precautions against build-up of electrostatic charges. Avoid dust formation. Do not breathe dust.

STORAGE

Storage Conditions :

Keep container tightly closed. Protect from direct sunlight. Store in well-ventilated area. Store indoors.

Packaging Material :

Polyolefin-lined paper bags, polyolefin bags or containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS :

ACGIH-TLV: Not established.
OSHA-PEL : Not established.

ENGINEERING CONTROLS :

Provide general ventilation. Use closed system or local exhaust ventilation. Provide safety shower and eye wash station near work area.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection	: Dust respirator.
Hand protection	: Protective gloves.
Eye protection	: Safety glasses, goggles.
Skin and body protection	: Safety helmet, protective clothing, safety shoes.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	: Solid.
APPEARANCE	: Colorless pellet.
ODOR	: Polyolefin odor.
pH	: Not applicable.
BOILING POINT	: Not available.
MELTING POINT	: 220 - 240 °C (See Appendix)[1)]
FLASH POINT	: > 200 °C [1)]
AUTOIGNITION TEMPERATURE	: Not available.
FLAMMABLE LIMITS	: Not available.
VAPOR PRESSURE	: Not available.
VAPOR DENSITY	: Not available.
SPECIFIC GRAVITY	: 0.83 – 0.84 (See Appendix)[1)]
SOLUBILITY	: Insoluble in water.[1)]
Log Pow	: Not available.
DECOMPOSITION TEMPERATURE	: Not available.

10. STABILITY AND REACTIVITY

STABILITY : Stable for normal storage and handling.
HAZARDOUS REACTIONS : Reacts with strong oxidizers. Dust and fumes may form an explosive mixture with air, may be ignited by sources of an ignition.
CONDITIONS TO AVOID : Heat.
MATERIALS TO AVOID : Strong oxidizers, etc.
HAZARDOUS DECOMPOSITION PRODUCTS : Carbon oxides.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
Oral LD_{50} >2000 mg/kg (Calculated value for the mixture)
Skin LD_{50} >2000 mg/kg (Calculated value for the mixture)

SKIN CORROSION/IRRITATION: Not available.

SERIOUS EYE DAMAGE/EYE IRRITATION: Not available.

RESPIRATORY SENSITIZATION: Not available.

SKIN SENSITIZATION: Not available.

GERM CELL MUTAGENICITY: Not available.

CARCINOGENICITY: See Section 2.

REPRODUCTIVE TOXICITY: Not available.

SPECIFIC TARGET ORGAN TOXICITY: Not available.

ASPIRATION HAZARD: Not available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.

PERSISTENCE/DEGRADABILITY: Not available.

BIOACCUMULATION POTENTIAL: 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 number : None.
UN class : Not regulated.

15. REGULATORY INFORMATION

UNITED STATES
TSCA STATUS :
All components of this product are listed on the TSCA Inventory.

CERCLA REPORTABLE QUANTITY : None.

SARA Title III :
SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES: None.
SECTION 311/312 HAZARD CATEGORIES:
Non-hazardous under section 311/312.
SECTION 313 TOXIC CHEMICALS: None.

CALIFORNIA PROPOSITION 65 :
This product contains no chemicals known to the state of California to cause cancer and developmental toxicity.

INVENTORY STATUS
X: All components of this product comply with the inventory requirements administered by the governing country(s).

United States	: TSCA Inventory [X]
European Union	: EINECS [X] ELINCS [ ] NLP [ ]
Australia	: AICS [X]
Canada	: DSL [ ] NDSL [X]*
China	: IECSC [X]
Japan	: ENCS [X]
Korea	: KECI [X]**
New Zealand	: NZIoC [ ]
Philippine	: PICCS [ ]

* Canada: Contains one or more components that are listed on NDSL; other components are listed on DSL.
** Korea: TPX DX350 contains one or more substances that is not listed on ECL.

16. OTHER INFORMATION

References:
1) In-house data

This SDS was prepared in compliance with 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 Safety Data Sheet covers these products :

Group A

Chemical name : 4-Methyl-1-pentene 1-decene copolymer

CAS No. : 25155-83-3

Grade name	Melting Point	Specific gravity
RT18	237 °C	0.83
RT31	235 °C	0.83
DX350	237 °C	0.83
DX470	237 °C	0.835
DX818	238 °C	0.83
DX820	238 °C	0.83
DX845	236 °C	0.83

Group B

Chemical name : 4-Methyl-1-pentene 1-dodecene 1-tetradecene copolymer

CAS No. : 103908-22-1

Grade name	Melting Point	Specific gravity
MX020	228 °C	0.83

Gurop C

Chemical name : 4-Methyl-1-pentene 1-hexadecene 1-octadecene copolymer

CAS No. : 81229-87-0

Grade name	Melting Point	Specific gravity
DX231	230 °C	0.83
DX310	222 °C	0.83
DX324	227 °C	0.83
MX001	223 °C	0.83
MX002	222 °C	0.83
MX002O	222 °C	0.83
MX004	227 °C	0.83
MX022	227 °C	0.83
MX023	227 °C	0.83