

Revision Date
Version / Revision
Supersedes Version

22-Jun-2019***

product code Issuing date **TP02** 05-Aug-2019

Supersedes Version 6.02***

TOPAS® Cyclic Olefin Copolymers

1: Identification

Product Identifier

Identification of the substance/preparation

TOPAS® Cyclic Olefin Copolymers

Recommended uses and restrictions on use

Use of the Substance / Preparation film and sheet extrusion.

Supplier information

Supplier Polyplastics USA, Inc.

27240 Haggerty Road, Suite E-20 Farmington Hills, MI 48331

United States

Product Information email: info@topas.com

Emergency telephone number in USA, call 800 424 9300

outside USA, call +1.703.527.3887, collect calls accepted

available 24/7

2. Hazards identification

2.1. Classification of the substance or mixture

This substance is not hazardous in accordance with paragraph (d) of §1910.1200 (GHS-US classification).***

OSHA Specified Hazards Not applicable.

2.2. Label elements

Not required according to §1910.1200 (GHS-US labeling).

2.3. Other hazards

None known

3. Composition / Information on ingredients



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Chemical characterization contains ethylene-norbornene copolymer (CAS 26007-43-2)

Remarks The following specific grades of TOPAS are covered by this MSDS:

5013F-04; 6013F-04; 7010F-600; 8007F-04; 8007F-600; 9506F-04; 9506F-500

4. First aid measures

Description of first aid measures

General advice

Remove/Take off immediately all contaminated clothing. Wash/Decontaminate removed clothing before reuse.

Inhalation

Aerate with fresh air. When symptoms persist or in all cases of doubt seek medical advice.

Eyes

Resin particles, like other inert materials, are mechanically irritating to eyes. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin

Cool skin rapidly with cold water after contact with molten polymer. If polymer is stuck to skin, do not remove. Allow adhered polymer to come off naturally. Removal of adhered polymer may result in more tissue damages than if polymer is allowed to come off over time. When symptoms persist or in all cases of doubt seek medical advice.

Ingestion

Do not induce vomiting without medical advice. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

Main symptoms

None known.

Advice for the rescuer

Special note for doctor

This product is essentially inert and non-toxic. Under conditions of thermal decomposition irritant gases may be formed. Exposed patients may need to have their arterial blood gases and carboxyhemoglobin levels checked

5. Firefighting measures

Extinguishing media

Suitable extinguishing media

water spray, foam, dry chemical, carbon dioxide (CO2).

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.



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Special hazards

Under conditions giving incomplete combustion, hazardous gases produced may consist of: carbon monoxide (CO) carbon dioxide (CO2)

Combustion gases of organic materials must in principle be graded as inhalation poisons

Fire precautions and protective measures

Cool closed containers exposed to fire with water spray Keep people away from and upwind of fire Dike and collect water used to fight fire

Special protective equipment for firefighters

Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Personal precautions

Avoid contact with skin and eyes. Do not breathe dust. Keep people away from and upwind of spill/leak. For emergency responders: Personal protection see section 8.

Environmental precautions

Not readily biodegradable. Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

Methods and material used for collection and disposal of leak

Methods for containment

Stop the flow of material, if possible without risk.

Methods for cleaning up

Sweep up and shovel into suitable containers for disposal. Like most thermoplastic plastics the product can be recycled. Dispose of in accordance with local regulations.

Precautionary measures to prevent the occurrence of secondary disasters

7. Handling and storage

Handling

Advice on safe handling

Do not handle hot or molten material without appropriate protective equipment. Do not exceed recommended process



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temperatures to minimize release of decomposition products.

Hygiene measures

Wash hands before breaks and immediately after handling the product Take off all contaminated clothing immediately

Advice on the protection of the environment

See Section 8: Environmental exposure controls

Incompatible products

No special restrictions on storage with other products

Storage

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Dust can form an explosive mixture in air. Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

Technical measures/Storage conditions

Keep away from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / Personal protection

Exposure limits United States of America

US OSHA Z-1

US NIOSH IDHL

Appropriate Engineering controls

Ensure adequate ventilation. Provide for appropriate exhaust ventilation and dust collection at machinery.

Personal protective equipment

General industrial hygiene practice

Avoid contact with skin, eyes and clothing. Do not breathe dust or mist. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures

Wash hands before breaks and immediately after handling the product. Take off all contaminated clothing immediately.

Respiratory protection

Based on workplace contaminant levels and working limits of the respirator, use a respirator approved by NIOSH

Hand protection

Heat resistant gloves.



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Suitable material leather gloves

Eye protection

Tightly fitting safety goggles.

Skin and body protection

Wear face-shield and protective suit for abnormal processing problems.

Thermal Hazard

When handling hot material, use heat resistant gloves. Heat only in areas with appropriate exhaust ventilation.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

AppearancegranulesColourcolourlessOdourodourless

Odour threshold No data available На No data available Melting point/range approx. 65 - 160 °C Boiling point/range No data available Flash point Not applicable **Evaporation rate** No data available Flammability (solid, gas) No data available Lower explosion limit not applicable not applicable Upper explosion limit

Vapour pressure < 0.001 mm Hg @25°C (77 F)

Vapour densityNo data availableRelative densityNo data availableBulk density550 - 600 g/lMethodDIN 53466

Water solubility insoluble

log PowNo data availableAutoignition temperaturenot applicableDecomposition temperatureNo data availableViscositynot applicable

Oxidizing properties Does not apply, substance is not oxidising. There are no chemical groups

associated with oxidizing properties

9.2. Other information

VOC Content(%) < 0.5 % (wt/wt)

10. Stability and reactivity



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Reactivity

No specific reactions known.***

Chemical stability

Stable under normal conditions of handling, use and transportation.

Possibility of hazardous reactions

Hazardous polymerisation does not occur.

Conditions to avoid

Avoid temperatures above 350 °C / 662F. Risk of decomposition.

Incompatible materials

oxidizing agents.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours.

11. Toxicological information

Main symptoms

None known

Note

No toxicology information is available. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

Ecotoxicity

No data available

Persistence/Degradability

No data available

Bioaccumulative potential

No data available



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Mobility in soil

No data available

Other Adverse Effects

No data available

Note

No information on ecology is available. According to our experience and to the information provided to us, the product does not have any harmful effects if it is used and handled as specified.

13. Disposal considerations

Product Information

Where possible recycling is preferred to disposal or incineration. May be taken to waste disposal site or incineration plant, with household waste. Rules of the local authorities must be observed.

Uncleaned empty packaging

Regulations concerning reuse or disposal of used packaging materials must be observed.

14. Transport information

ICAO-TI / IATA-DGR Not restricted

IMDG Not restricted

D.O.T. (49CFR) Not restricted

TDG (Transport of Dangerous Goods) Canada Not restricted***

15. Regulatory information

OSHA Regulatory Status

This material is non-hazardous as defined by the American OSHA Hazard Communication Standard (29CFR 1910.1200).

Federal Regulations

This product complies with U.S. Toxic Substance Control Act (TSCA) It is listed on the active inventory list via the 2018 reset rule***

International Inventories



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The products covered by this SDS are permitted under the following inventories:

TSCA (US)

AICS (AU)

DSL (CA)

IECSC (CN)

EINECS (EU)

ENCS (JP)

KECI (KR)

NZIoC (NZ)

16. Other information

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Training advice

For effective first-aid, special training / education is needed.

Restrictions on use

None known***

Hazard Rating Systems

NFPA (National Fire Protection Association)

Health Hazard 1
Fire Hazard 1
Reactivity 0

HMIS (Hazardous Material Information System)

Health Hazard 0
Flammability 1
Physical Hazard 0

Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on TOPAS owned data and public sources deemed valid or acceptable. The absence of data elements required by OSHA, ANSI or Annex II, Regulation 1907/2006/EC indicates, that no data meeting these requirements is available.

Further information for the safety data sheet

For more information, consult the Technical Data Sheet (www.topas.com). Changes against the previous version are marked by ***.

Disclaimer

The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. TOPAS Advanced Polymers, Inc. makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. User has sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards