

Material Safety Data Sheet



Revision Date
Revision Number

02-Jan-2010
4.00

product code TP01

Topas® Cyclic Olefin Copolymers

1. PRODUCT AND COMPANY IDENTIFICATION

Identification of the substance/preparation

Topas® Cyclic Olefin Copolymers

Company/Undertaking Identification

Topas Advanced Polymers GmbH
D-65926 Frankfurt
Germany

Product Information

+49 (0)1805-1-86727

Emergency telephone number

+49 (0)69-305 6418

Use of the Substance /Preparation

injection molding articles for optical industry, packaging
Industry, medical articles.

2. HAZARDS IDENTIFICATION

Globally Harmonized System

Basis for Classification

Based on present data no classification and labelling is required according to GHS, taking into account the national implementation (United Nations version 2007)

Other Hazards

Contact with product at elevated temperatures can result in thermal burns

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization

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

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Remarks

The following specific grades of Topas are covered by this MSDS:

5013L-10; 5013S-04; 6013D-61; 6013D-63; 6013S-04; 6015D-61; 6015S-04; 6017S-04; 8007D-61; 8007S-04; 8007X10; TKX-0001

4. 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.

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.

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.

Ingestion

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

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

Main symptoms

None known.

Notes to physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Extinguishing media which must not be used for safety reasons

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

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Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases

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

Special protective equipment for fire-fighters

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

Precautions for fire-fighting

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid contact with skin and eyes. Do not breathe dust. Keep people away from and upwind of spill/leak.

Environmental precautions

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

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.

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 temperatures to minimize release of decomposition products.

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.

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Storage

Technical measures/Storage conditions

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

Advice on common storage

No special restrictions on storage with other products

VCI Storage Class

11: Combustible solids

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits United States of America

US ACGIH

| Component | TWA (mg/m ³) | TWA (ppm) | STEL (mg/m ³) | STEL (ppm) | Ceiling (mg/m ³) | Ceiling (ppm) |
|---|-----------------------------|--------------|------------------------------|---------------|---------------------------------|------------------|
| Dust, general threshold limit value (inhalable fraction) None | 10 | | | | | |
| Dust, general threshold limit value (respirable fraction) None | 3 | | | | | |

Exposure limits European Union

No exposure limits established

Exposure limits Germany

TRGS 900

| Component | AGW (mg/m ³) | AGW (ppm) | Ceiling Limit Value | Peak-limit category | Note |
|---|-----------------------------|--------------|---------------------|---------------------|------|
| Dust, general threshold limit value (inhalable fraction) None | 10 | | 2 | II | |
| Dust, general threshold limit value (respirable fraction) None | 3 | | 2 | II | |

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MAK-values from the DFG

| Component | MAK (ppm) | MAK (mg/m ³) | listed w/o limits | Ceiling limit value | H;S |
|---|-----------|--------------------------|-------------------|---------------------|-----|
| Dust, general threshold limit value (inhalable fraction) None | | 4 | | | |
| Dust, general threshold limit value (respirable fraction) None | | 1,5 | | | |

Occupational exposure controls

Engineering measures

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

If the dust exposure limit is exceeded, wear dust mask or respirator with particle filter.

Hand protection

Heat resistant gloves.

Suitable material

leather gloves

Eye protection

Tightly fitting safety goggles. Equipment should conform to EN 166.

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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------|----------------------------|
| Physical state | granules |
| Colour | colourless |
| Odour | odourless |
| Softening point | >60 °C/ >140 F |
| Bulk density | 550 - 600 g/l |
| Method | DIN 53466 |
| Vapour pressure | < 0.001 mm Hg @25°C (77 F) |
| Water solubility | insoluble |
| VOC Content(%) | < 0.5 % (wt/wt) |

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions of handling, use and transportation.

Hazardous reactions

Hazardous polymerisation does not occur.

Conditions to avoid

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

Materials to avoid

oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Inhalation, Eye contact, Skin contact

Note

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

12. ECOLOGICAL INFORMATION

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12. ECOLOGICAL INFORMATION

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

| | |
|-----------------------|----------------|
| IMDG | Not restricted |
| ICAO/IATA | Not restricted |
| ADR/RID | Not restricted |
| D.O.T. (49CFR) | Not restricted |

15. REGULATORY INFORMATION

Globally Harmonized System

Basis for Classification

Based on present data no classification and labelling is required according to GHS, taking into account the national implementation (United Nations version 2007)

Labelling according to EC Directives

Basis for Classification

According to present data no classification and labelling is required according to Directives 67/548/EEC or 1999/45/EC

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16. OTHER INFORMATION

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Training advice

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

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 ANSI or 2001/58/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

This information is based on our present state of knowledge. It shall describe our products regarding safety requirements and shall not be construed as a guarantee or statement of condition and/or quality