

Product name	TOPAS COC		EU/EN
MSDS number	TP03	Revision Date	Jun.19.2006
Revision Number	2.02	Issuing date	Jun.05.2007

1. Identification of the substance/preparation and the company/undertaking

Product name

Topas® Cyclic Olefin Copolymers

Manufacturer, importer, supplier

Topas Advanced Polymers GmbH
D-65926 Frankfurt

Product Information

+49 (0)1805-1-86727

Emergency telephone number

+49 (0)69-305 6418

End use:

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

2. Composition/information on ingredients

Chemical characterization contains ethylene-norbornene copolmer , (CAS 26007-43-2) .

Remarks

The following specific grades of Topas are covered by this MSDS:
5010X1; 5010X2; 5013X6; 5013X10; 5013X14; 5013X15; 5013X16; 5013X25;
6013D-50; 6013X12; 6013X14; 6013X18; 6015X13; 6018X1; 8007D-50; 8007D-61;
8007X2; 8007X4; 9506X4; 9506X5

3. Hazards identification

Statements of hazard

The product does not require a hazard warning label in accordance with EC Directives.

Contact with product at elevated temperatures can result in thermal burns

4. First aid measures

General Information

Wash contaminated clothing before re-use.

Inhalation

Move to fresh air. If symptoms persist, call a physician.

Skin

Cool skin rapidly with cold water after contact with molten polymer. Obtain medical attention.

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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. If symptoms persist, call a physician.

Ingestion If swallowed, seek medical advice immediately and show this container or label. If conscious, drink plenty of water. Do not induce vomiting without medical advice.

Notes to physician

Main symptoms None known.
Treatment Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media
 water spray. foam. dry powder. 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.

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 carbon dioxide (CO2)
 Combustion gases of organic materials must in principle be graded as inhalation poisons

Special protective equipment for fire-fighters
 Wear self contained breathing apparatus for fire fighting if necessary.

Environmental precautions
 Dike and collect water used to fight fire.

Other Information
 Cool containers / tanks with water spray. Keep people away from and upwind of fire.

6. Accidental release measures

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

Methods for cleaning Up
 Shovel or sweep up. Like most thermoplastic plastics the product can be recycled. Keep in suitable, closed containers for disposal. Dispose of in accordance with local regulations.

7. Handling and storage

Handling

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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. .

Protection - fire and explosion:

Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge. Avoid dust formation.

Storage

Material storage

Keep in a dry, cool and well-ventilated place.

Technical measures/Storage conditions

Keep away from direct sunlight.

Incompatible products

No special restrictions on storage with other products.

German storage class

11: Combustible solids.

8. Exposure controls / personal protection

National occupational exposure limits (Germany)

Components	AGW	STEL Factor
Total Dust	10 mg/m ³	2
Respirable Dust	3 mg/m ³	2

ACGIH Exposure Limits

Components	TWA
Total Dust	10 mg/m ³
Respirable Dust	3 mg/m ³

Engineering measures

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Personal protective equipment

General advice

Avoid contact with skin and eyes. Remove and wash contaminated clothing before re-use.

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Hygiene measures	Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash contaminated clothing before re-use.		
Respiratory protection	If the dust exposure limit is exceeded, wear dust mask or respirator with particle filter.		
Eye protection	safety glasses. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.		
Hand protection			
Heat-resistant gloves			
Suitable material	leather gloves		

9. Physical and chemical properties

Appearance			
Form	granules		
Colour	colourless		
Odor	almost odourless, characteristic		

Softening point	60 °C / 140 F		
Bulk density	510 g/l		
Method	DIN 53466		
vapor pressure	< 0.001 mm Hg @ 25°C		
Water solubility	insoluble		
VOC Content(%)	< 0.5 % (wt/wt)		

10. Stability and reactivity

Stability	Stable under normal conditions of handling, use and transportation.		
Conditions to avoid	Avoid temperatures above 350°C / 662F Product decomposes at elevated temperatures		
Materials to avoid	oxidizing agents.		
Thermal decomposition	Thermal decomposition can take place above 350°C.		
Hazardous reactions	Hazardous polymerization does not occur.		

11. Toxicological information

Toxicological data are not available. Observe the usual hygienic measures for handling chemicals.

12. Ecological information

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Ecotoxicological data are not available. According to experience, the material has no harmful effect on the environment.

13. Disposal considerations

- Product information** 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

- ADR/RID** Not regulated
- ADNR** Not regulated
- ICAO/IATA** not restricted
- IMDG** Not regulated

15. Regulatory information

Labelling in accordance with EC directives

The product does not require a hazard warning label in accordance with EC directives/the relevant national laws.

16. Other information

For further information, see:

For more information, consult the Technical Data Sheet (www.topas.com).

Other Information:

Changes against the previous version are marked by ***

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.

EC SAFETY DATA SHEET 2001/58/EG

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Further information

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