

Safety Data Sheet

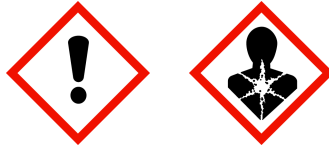
according to Regulation (EC) No 1907/2006

TIP TOP REMACOAT D-40 ISO

Revision date: 06.07.2017

Product code: 00359-1096

Page 2 of 10

Pictograms:**Hazard statements**

H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H373	May cause damage to organs (Respiratory system) through prolonged or repeated exposure if inhaled.

Precautionary statements

P260	Do not breathe vapour.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.

Special labelling of certain mixtures

EUH204	Contains isocyanates. May produce an allergic reaction.
--------	---

2.3. Other hazards

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Preparation with isocyanates

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMACOAT D-40 ISO

Revision date: 06.07.2017

Product code: 00359-1096

Page 3 of 10

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
39420-98-9	Polypropylene glycol, diphenylmethane diisocyanate polymer			< 60 %
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			
101-68-8	Diphenylmethane-4,4'-diisocyanate			< 30 %
	202-966-0	615-005-00-9	01-2119457014-47	
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			
108-32-7	Propylene carbonate			< 10 %
	203-572-1	607-194-00-1	01-2119537232-48	
	Eye Irrit. 2; H319			
	Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate			< 10 %
			01-2119457015-45	
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			
25686-28-6	4,4'-Methylenediphenyl diisocyanate, oligomers			< 10 %
	500-040-3		01-2119457013-49	
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

- Remove contaminated soaked clothing immediately.
- In the event of persistent symptoms receive medical treatment.
- Take away from danger area and lay down affected person.

After inhalation

- If patient is not breathing, apply artificial respiration.
- Move to fresh air in case of accidental inhalation of vapours.
- Refer for medical treatment.

After contact with skin

- Remove immediately adhering matter.
- Consult a physician.
- Wash contaminated skin with plenty of water and soap or with liquid polyethylene glycol.

After contact with eyes

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Seek medical treatment by eye specialist.

After ingestion

- Do not induce vomiting.
- Rinse out mouth thoroughly with water. Never give anything by mouth to an unconscious person.
- Summon a doctor immediately.
- Induce vomiting only upon the advice of a physician.



Safety Data Sheet

according to Regulation (EC) No 1907/2006

TIP TOP REMACOAT D-40 ISO

Revision date: 06.07.2017

Product code: 00359-1096

Page 4 of 10

4.2. Most important symptoms and effects, both acute and delayed

- Harmful if inhaled.
- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes serious eye irritation.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause respiratory irritation.
- Suspected of causing cancer.
- May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

- Keep under medical supervision for at least 48 hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

- Foam, carbon dioxide (CO₂), dry chemical, water-spray.

Unsuitable extinguishing media

- Full water jet.

5.2. Special hazards arising from the substance or mixture

- Fire may produce:
 - carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x)
 - Hydrogen cyanide (HCN)
 - Isocyanates (NCO).

5.3. Advice for firefighters

- Wear self-contained breathing apparatus and protective suit.

Additional information

- Do not release chemically contaminated water into drains, soil or surface waters. Sufficient measures must be taken to retain water used for extinguishing.
- Cool containers at risk with water spray jet.
- Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- In case of vapour formation use respirator.
- Ensure adequate ventilation.
- Remove persons to safety.
- Use personal protective clothing.

6.2. Environmental precautions

- Do not discharge into the drains/surface waters/ground water.
- Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
- Shovel into suitable container for disposal.
- Container should not be gas-tight closed.
- Container can be pressurized by carbon dioxide due to reaction with humid air and/or water.

6.4. Reference to other sections

- Observe protective instructions (see Sections 7 and 8).
- Information for disposal see section 13.

SECTION 7: Handling and storage

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMACOAT D-40 ISO

Revision date: 06.07.2017

Product code: 00359-1096

Page 5 of 10

7.1. Precautions for safe handling**Advice on safe handling**

- Keep container tightly closed.
- Vapours are heavier than air and spread along ground.
- Avoid contact with the skin and the eyes.
- Do not breathe vapours.
- Local exhaust.
- Use only in thoroughly ventilated areas.

Advice on protection against fire and explosion

- Keep away from heat and sources of ignition.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

- Keep containers tightly closed in a cool, well-ventilated place.
- Keep at temperatures between 15°C and 35°C.

Advice on storage compatibility

- Exothermic reaction with:
 - Acids and bases.
 - Water, amines, alcohols

Further information on storage conditions

- Keep away from food, drink and animal feeding stuffs.
- Container can be pressurized by carbon dioxide due to reaction with humid air and/or water.

7.3. Specific end use(s)

- Coating system for protection against wear and corrosion

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
-	Isocyanates, all (as -NCO) Except methyl isocyanate	-	0.02		TWA (8 h)	WEL
		-	0.07		STEL (15 min)	WEL

8.2. Exposure controls**Appropriate engineering controls**

- Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

- Do not inhale vapours.
- Avoid contact with eyes and skin.
- Wash hands before breaks and immediately after handling the product.
- When using do not eat, drink or smoke.
- Take off immediately all contaminated clothing.

Eye/face protection

- Eye wash bottle with pure water (EN 15154).
- Tightly fitting goggles (EN 166).

Hand protection

- Chemical protective gloves made of nitrile, nitrile/cotton, butyl or neoprene, with a minimum thickness of 0.7 mm, permeation time of approx. 480 minutes.
- This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374



Safety Data Sheet

according to Regulation (EC) No 1907/2006

TIP TOP REMACOAT D-40 ISO

Revision date: 06.07.2017

Product code: 00359-1096

Page 6 of 10

carried out under lab conditions.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Pls. find examples in the protective gloves database under: <http://bestglove.com/site/chemrest/>

Skin protection

Long sleeved clothing (EN 368).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Yellowish
Odour:	Erthy

Test method

Changes in the physical state

Initial boiling point and boiling range:	250 - 300 °C	Decomposition
Flash point:	> 200 °C	
Lower explosion limits:	n.d.	
Upper explosion limits:		
Ignition temperature:	> 600 °C	
Vapour pressure: (at 25 °C)	< 0,00001 hPa	
Density (at 25 °C):	1,10 - 1,14 g/cm ³	
Water solubility: (at 20 °C)	Reacts with water.	
Viscosity / dynamic: (at 25 °C)	350 - 550 mPa·s	
Flow time: (at 25 °C)	> 20 s	6 DIN/ISO 2431

9.2. Other information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with strong acids and alkalies.

Reacts with: Water, amines, alcohols

10.4. Conditions to avoid

Container can be pressurized by carbon dioxide due to reaction with humid air and/or water.

10.5. Incompatible materials

Acids and bases.

Water, amines, alcohols



Safety Data Sheet

according to Regulation (EC) No 1907/2006

TIP TOP REMACOAT D-40 ISO

Revision date: 06.07.2017

Product code: 00359-1096

Page 7 of 10

10.6. Hazardous decomposition products

Hydrogen cyanide gas
Carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x).
Isocyanates

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if inhaled.
No toxicological data available.

Irritation and corrosivity

Causes serious eye irritation.
Causes skin irritation.

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Polypropylene glycol, diphenylmethane diisocyanate polymer; Diphenylmethane-4,4'-diisocyanate; Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate; 4,4'-Methylenediphenyl diisocyanate, oligomers)
May cause an allergic skin reaction. (Polypropylene glycol, diphenylmethane diisocyanate polymer; Diphenylmethane-4,4'-diisocyanate; Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate; 4,4'-Methylenediphenyl diisocyanate, oligomers)

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer. (Polypropylene glycol, diphenylmethane diisocyanate polymer; Diphenylmethane-4,4'-diisocyanate; Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate; 4,4'-Methylenediphenyl diisocyanate, oligomers)
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (Polypropylene glycol, diphenylmethane diisocyanate polymer; Diphenylmethane-4,4'-diisocyanate)

STOT-repeated exposure

May cause damage to organs (Respiratory system) through prolonged or repeated exposure if inhaled. (Polypropylene glycol, diphenylmethane diisocyanate polymer; Diphenylmethane-4,4'-diisocyanate)

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

SECTION 12: Ecological information

12.1. Toxicity

Ecological data are not available.

12.2. Persistence and degradability

Not readily biodegradable.

12.3. Bioaccumulative potential

A bioaccumulation potential is to be expected.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.



Safety Data Sheet

according to Regulation (EC) No 1907/2006

TIP TOP REMACOAT D-40 ISO

Revision date: 06.07.2017

Product code: 00359-1096

Page 8 of 10

12.6. Other adverse effects

Low hazard to waters.

Further information

In aqueous systems, formation of insoluble and chemically inert (inactive) polyureas.

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Where possible recycling is preferred to disposal.

Can be incinerated, when in compliance with local regulations.

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

Contaminated packagings are to be treated like the product itself.

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no



Safety Data Sheet

according to Regulation (EC) No 1907/2006

TIP TOP REMACOAT D-40 ISO

Revision date: 06.07.2017

Product code: 00359-1096

Page 9 of 10

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No dangerous good in sense of this transport regulation.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 56: Diphenylmethane-4,4'-diisocyanate

2004/42/EC (VOC): 0 %

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
CAS = Chemical Abstract Service
EN = European norm
ISO = International Organization for Standardization
DIN = Deutsche Industrie Norm
PBT = Persistent Bioaccumulative and Toxic
vPvB = Very Persistent and very Bio-accumulative
LD = Lethal dose
LC = Lethal concentration
EC = Effect concentration
IC = Median immobilisation concentration or median inhibitory concentration

Relevant H and EUH statements (number and full text)

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

TIP TOP REMACOAT D-40 ISO

Revision date: 06.07.2017

Product code: 00359-1096

Page 10 of 10

H373	May cause damage to organs (Respiratory system) through prolonged or repeated exposure if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
EUH204	Contains isocyanates. May produce an allergic reaction.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)