



1 Identification

- **Product identifier**
- **Trade name:** 39023 - 39583 TPO-Direct Bumper Coaters
- **Article number:**
39153, 39253, 39263, 39273, 39163, 39173, 39183, 39193, 39283, 39293, 39413, 39423, 39443, 39583, 39023, 39073, 39083, 39103
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Coating
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SEM Products Inc.
1685 Overview Drive
Rock Hill, SC 29730
803 207 8225
- **Information department:**
cust_care@semproducts.com : SEM Products, Inc. 1685 Overview Dr. Rock Hill, SC 29730 : phone 1-800-831-1122, M - TH 7am - 4pm EDT
- **Emergency telephone number:** CHEMTREC 1-800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 GHS04 Flame, Gas cylinder

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.



GHS08 Health hazard

Carc. 2	H351	Suspected of causing cancer.
Repr. 2	H361	Suspected of damaging fertility or the unborn child.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2	H315	Causes skin irritation.
STOT SE 3	H336	May cause drowsiness or dizziness.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**



· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

toluene
cyclohexane
2,6-dimethylheptan-4-one

· **Hazard statements**

H222-H229 *Extremely flammable aerosol. Pressurized container: May burst if heated.*
H315 *Causes skin irritation.*
H351 *Suspected of causing cancer.*
H361 *Suspected of damaging fertility or the unborn child.*
H336 *May cause drowsiness or dizziness.*
H373 *May cause damage to organs through prolonged or repeated exposure.*
H304 *May be fatal if swallowed and enters airways.*

· **Precautionary statements**

P101 *If medical advice is needed, have product container or label at hand.*
P102 *Keep out of reach of children.*
P103 *Read label before use.*
P210 *Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*
P251 *Pressurized container: Do not pierce or burn, even after use.*
P260 *Do not breathe dust/fume/gas/mist/vapors/spray.*
P211 *Do not spray on an open flame or other ignition source.*
P301+P310 *If swallowed: Immediately call a poison center/doctor.*
P321 *Specific treatment (see on this label).*
P405 *Store locked up.*
P410+P412 *Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.*
P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.
· **vPvB:** Not applicable.



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3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**
Mixture: consisting of the following components.
Weight percentages

- **Dangerous components:**

115-10-6	dimethyl ether	40 - 60%
108-88-3	toluene	13 - 30%
110-19-0	isobutyl acetate	13 - 30%
110-82-7	cyclohexane	1.5 - 5%
108-83-8	2,6-dimethylheptan-4-one	1-1.5%
	NJ TSRN: 8009285004 Polyester Plasticizer	1-1.5%
1333-86-4	Carbon black	≤1%
13463-67-7	titanium dioxide	≤1%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.

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- Ensure adequate ventilation.
- Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
- No special measures required.
- Ensure good ventilation/exhaustion at the workplace.
- Open and handle receptacle with care.
- **Information about protection against explosions and fires:**
- Do not spray on a naked flame or any incandescent material.
- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.
- Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
- Store in a cool location.
- Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility: Not required.**
- **Further information about storage conditions:**
- Keep receptacle tightly sealed.
- Do not gas tight seal receptacle.
- Store in cool, dry conditions in well sealed receptacles.
- Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

115-10-6 dimethyl ether	
WEEL	Long-term value: 1000 ppm
108-88-3 toluene	
PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
REL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm

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TLV	Long-term value: 75 mg/m ³ , 20 ppm BEI
110-19-0 isobutyl acetate	
PEL	Long-term value: 700 mg/m ³ , 150 ppm
REL	Long-term value: 700 mg/m ³ , 150 ppm
TLV	Long-term value: 713 mg/m ³ , 150 ppm
110-82-7 cyclohexane	
PEL	Long-term value: 1050 mg/m ³ , 300 ppm
REL	Long-term value: 1050 mg/m ³ , 300 ppm
TLV	Long-term value: 344 mg/m ³ , 100 ppm
108-83-8 2,6-dimethylheptan-4-one	
PEL	Long-term value: 290 mg/m ³ , 50 ppm
REL	Long-term value: 150 mg/m ³ , 25 ppm
TLV	Long-term value: 145 mg/m ³ , 25 ppm

· Ingredients with biological limit values:

108-88-3 toluene	
BEI	0.02 mg/L Medium: blood Time: prior to last shift of workweek Parameter: Toluene
	0.03 mg/L Medium: urine Time: end of shift Parameter: Toluene
	0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the skin.
- Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Aerosol
· Color:	According to product specification
· Odor:	Characteristic
· Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	-24 °C

· **Flash point:** -42 °C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 235 °C

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** In use, may form flammable/explosive vapour-air mixture.

· **Explosion limits:**

· Lower:	1.2 Vol %
· Upper:	18.6 Vol %

· **Vapor pressure at 20 °C:** 5200 hPa

· **Density at 20 °C:** 0.80593 g/cm³

· **Relative density** Not determined.

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· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	89.8 %
VOC content:	89.8 %
	724.0 g/l / 6.04 lb/gl
· Solids content:	9.6 %
· Other information	No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

· LD/LC50 values that are relevant for classification:		
108-88-3 toluene		
Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rabbit)
Inhalative	LC50/4 h	5320 mg/l (mouse)
110-82-7 cyclohexane		
Oral	LD50	12705 mg/kg (rat)

- Primary irritant effect:
 - on the skin: Irritant to skin and mucous membranes.
 - on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

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· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

108-88-3	toluene	3
1333-86-4	Carbon black	2B
13463-67-7	titanium dioxide	2B
1330-20-7	xylene	3
67-63-0	propan-2-ol	3
100-41-4	ethylbenzene	2B
7631-86-9	silicon dioxide, chemically prepared	3
14807-96-6	Talc	2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

68911-87-5 ALKYL QUATERNARY AMMONIUM MONTMORILLONITE

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
 Water hazard class 3 (Self-assessment): extremely hazardous for water
 Water hazard class 2 (Self-assessment): hazardous for water
 Do not allow product to reach ground water, water course or sewage system.
 Danger to drinking water if even small quantities leak into the ground.
 Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
 Must not be disposed of together with household garbage. Do not allow product to reach sewage system.




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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number · DOT, ADR, IMDG, IATA	UN1950
· UN proper shipping name · DOT · ADR · IMDG · IATA	Aerosols, flammable 1950 Aerosols AEROSOLS AEROSOLS, flammable
· Transport hazard class(es) · DOT	
	
· Class · Label	2.1 2.1
· ADR	
	
· Class · Label	2 5F Gases 2.1
· IMDG, IATA	
	
· Class · Label	2.1 2.1
· Packing group · DOT, ADR, IMDG, IATA	Void
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · EMS Number:	Warning: Gases F-D,S-U
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

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· **Transport/Additional information:**· **DOT**· **Quantity limitations**

On passenger aircraft/rail: 75 kg

On cargo aircraft only: 150 kg

· **ADR**· **Excepted quantities (EQ)**

Code: E0

Not permitted as Excepted Quantity

· **IMDG**· **Limited quantities (LQ)**

1L

· **Excepted quantities (EQ)**

Code: E0

Not permitted as Excepted Quantity

· **UN "Model Regulation":**

UN1950, Aerosols, 2.1

* **15 Regulatory information**· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Sara**· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

108-88-3	toluene
110-82-7	cyclohexane
7429-90-5	aluminium
	ACRYLIC RESIN
1330-20-7	xylene
78-93-3	butanone
67-63-0	propan-2-ol
100-41-4	ethylbenzene
67-56-1	methanol
14807-96-6	Talc

· **TSCA (Toxic Substances Control Act):**

115-10-6	dimethyl ether
108-88-3	toluene
110-19-0	isobutyl acetate
110-82-7	cyclohexane
108-83-8	2,6-dimethylheptan-4-one
1333-86-4	Carbon black
7429-90-5	aluminium
19549-80-5	4,6-dimethylheptan-2-one
64742-88-7	Solvent naphtha (petroleum), medium aliph.
13463-67-7	titanium dioxide

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51274-00-1	YELLOW IRON OXIDE
1330-20-7	xylene
78-93-3	butanone
67-63-0	propan-2-ol
1332-37-2	Iron oxide

· **Proposition 65**

· **Chemicals known to cause cancer:**

1333-86-4	Carbon black
13463-67-7	titanium dioxide
1330-20-7	xylene
100-41-4	ethylbenzene
25068-38-6	bisphenolA(chloro)oxirane polymer

· **Chemicals known to cause reproductive toxicity for females:**

108-88-3	toluene
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· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

108-88-3	toluene
67-56-1	methanol

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

108-88-3	toluene	II
110-82-7	cyclohexane	I
1330-20-7	xylene	I
78-93-3	butanone	I
100-41-4	ethylbenzene	D

· **TLV (Threshold Limit Value established by ACGIH)**

108-88-3	toluene	A4
1333-86-4	Carbon black	A4
7429-90-5	aluminium	A4
13463-67-7	titanium dioxide	A4
1330-20-7	xylene	A4
67-63-0	propan-2-ol	A4
100-41-4	ethylbenzene	A3
14807-96-6	Talc	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-86-4	Carbon black
13463-67-7	titanium dioxide
67-56-1	methanol

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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· **Hazard pictograms**



· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

toluene
cyclohexane
2,6-dimethylheptan-4-one

· **Hazard statements**

H222-H229 *Extremely flammable aerosol. Pressurized container: May burst if heated.*
H315 *Causes skin irritation.*
H351 *Suspected of causing cancer.*
H361 *Suspected of damaging fertility or the unborn child.*
H336 *May cause drowsiness or dizziness.*
H373 *May cause damage to organs through prolonged or repeated exposure.*
H304 *May be fatal if swallowed and enters airways.*

· **Precautionary statements**

P101 *If medical advice is needed, have product container or label at hand.*
P102 *Keep out of reach of children.*
P103 *Read label before use.*
P210 *Keep away from heat/sparks/open flames/hot surfaces. - No smoking.*
P251 *Pressurized container: Do not pierce or burn, even after use.*
P260 *Do not breathe dust/fume/gas/mist/vapors/spray.*
P211 *Do not spray on an open flame or other ignition source.*
P301+P310 *If swallowed: Immediately call a poison center/doctor.*
P321 *Specific treatment (see on this label).*
P405 *Store locked up.*
P410+P412 *Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.*
P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environment protection department.

· **Contact:** Steve Gaver (sgaver@semproducts.com)

· **Date of preparation / last revision** 04/02/2015 / 3

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

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Printing date 04/02/2015

Reviewed on 04/02/2015

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ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Carc. 2: Carcinogenicity, Hazard Category 2
Repr. 2: Reproductive toxicity, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

· *** Data compared to the previous version altered.**

USA