

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Turbo Poly Seal

1.2. Recommended use and restrictions on use

Use of the substance/mixture : One-component bitumen/polyurethane waterproofing resin

1.3. Supplier

Bergstrom Industries
850 Greenlick Hollow Rd
Mt Pleasant, PA 15666
United States
T +1 (203) 858-0080

1.4. Emergency telephone number

Emergency number : Canutec : +1 (613) 996-6666
Chemtrec: + (800) 424-9300
Source supplier emergency: +1 (800) 567-1492

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 2	H225	Highly flammable liquid and vapor
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2B	H320	Causes eye irritation
Respiratory sensitization, Category 1	H334	May cause an allergy or asthma symptoms or breathing difficulties if inhaled
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Carcinogenicity Category 2	H351	Suspected of causing cancer (Inhalation, Dermal, oral)
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure (Inhalation, Dermal, oral)

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

: H225 - Highly flammable liquid and vapor
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H320 - Causes eye irritation
H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled
H351 - Suspected of causing cancer (Inhalation, Dermal, oral)
H373 - May cause damage to organs through prolonged or repeated exposure (Inhalation, Dermal, oral)

Precautionary statements (GHS US)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 - Keep container tightly closed.

P240 - Ground/Bond container and receiving equipment.

P241 - Use explosion-proof electrical, lighting, ventilating equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe mist, spray, vapors.

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 - Wash thoroughly after handling.

P272 - Contaminated work clothing must not be allowed out of the workplace.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P284 - [In case of inadequate ventilation] wear respiratory protection.

P302+P352 - If on skin: Wash with plenty of water.

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P341 - If inhaled: If breathing is difficult, 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.

P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER, a doctor.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P363 - Wash contaminated clothing before reuse.

P370+P378 - In case of fire: Use dry extinguishing powder, carbon dioxide (CO₂), alcohol resistant foam to extinguish.

P403+P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

P501 - Dispose of contents / container by a local waste disposal company according to regional regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Asphalt	CAS-No.: 8052-42-4	30 – 60	Carc. 2, H351
toluene	CAS-No.: 108-88-3	10 – 30	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	GHS US classification
butanone, ethyl methyl ketone	CAS-No.: 78-93-3	5 – 10	Flam. Liq. 2, H225 Eye Irrit. 2B, H320 STOT SE 3, H336
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	CAS-No.: 101-68-8	5 – 10	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]	CAS-No.: 13463-67-7	1 – 5	Carc. 2, H351
4-isocyanatosulphonyltoluene, tosyl isocyanate	CAS-No.: 4083-64-1	0.1 – 1	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Resp. Sens. 1, H334 STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures**4.1. Description of first aid measures****First-aid measures general**

: IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.

First-aid measures after skin contact

: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion

: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation

: May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact

: Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact

: Mild eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures**5.1. Suitable (and unsuitable) extinguishing media**

Suitable extinguishing media

: Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard

: Highly flammable liquid and vapor.

Hazardous decomposition products in case of fire

: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****6.1.1. For non-emergency personnel**

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

Turbo Poly Seal	
No additional information available	
toluene (108-88-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Toluene
ACGIH OEL TWA [ppm]	20 ppm
Remark (ACGIH)	TLV® Basis: CNS, visual & hearing impair; female repro system eff; pregnancy loss. Notations: OTO; A4 (Not classifiable as a Human Carcinogen); BEI

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

toluene (108-88-3)	
Regulatory reference	ACGIH 2022
USA - ACGIH - Biological Exposure Indices	
Local name	TOLUENE
BEI	0.3 mg/g Kreatinin Parameter: o-Cresol (with hydrolysis) - Medium: urine - Sampling time: End of shift - Notations: B 0.03 mg/l Parameter: Toluene - Medium: urine - Sampling time: End of shift 0.02 mg/l Parameter: Toluene - Medium: blood - Sampling time: Prior to last shift of workweek
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Toluene
OSHA PEL TWA [2]	200 ppm
OSHA PEL C [ppm]	300 ppm
Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	500 ppm 10 mins.
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-2
Asphalt (8052-42-4)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Asphalt (Bitumen) fumes, as benzene-soluble aerosol
ACGIH OEL TWA	0.5 mg/m ³ (I - Inhalable particulate matter)
Remark (ACGIH)	TLV® Basis: URT & eye irr. Notations: A4 (Not classifiable as a Human Carcinogen); BEIP
Regulatory reference	ACGIH 2022
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Titanium dioxide
ACGIH OEL TWA	0.2 mg/m ³ (Nanoscale particles. R - Respirable particulate matter) 2.5 mg/m ³ (Finescale particles. R - Respirable particulate matter)
Remark (ACGIH)	TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Titanium dioxide (Total dust)
OSHA PEL TWA [1]	15 mg/m ³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
butanone, ethyl methyl ketone (78-93-3)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methyl ethyl ketone (MEK)
ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	300 ppm
Remark (ACGIH)	TLV® Basis: URT irr; CNS & PNS impair. Notations: BEI

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

butanone, ethyl methyl ketone (78-93-3)	
Regulatory reference	ACGIH 2022
USA - ACGIH - Biological Exposure Indices	
Local name	METHYL ETHYL KETONE
BEI	2 mg/l Parameter: Methyl ethyl ketone - Medium: urine - Sampling time: End of shift - Notations: Ns
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	2-Butanone (Methyl ethyl ketone)
OSHA PEL TWA [1]	590 mg/m ³
OSHA PEL TWA [2]	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
4-isocyanatosulphonyltoluene, tosyl isocyanate (4083-64-1)	
No additional information available	
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methylene bisphenyl isocyanate (MDI)
ACGIH OEL TWA [ppm]	0.005 ppm
Remark (ACGIH)	TLV® Basis: Resp sens
Regulatory reference	ACGIH 2022
USA - OSHA - Occupational Exposure Limits	
Local name	Methylene bisphenyl isocyanate (MDI)
OSHA PEL C	0.2 mg/m ³
OSHA PEL C [ppm]	0.02 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
 Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Viscous liquid.
Color	: brown
Odor	: Solvent
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 80 °C
Flash point	: 10.5 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.07
Solubility	: insoluble in water. Water: 0 %
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: 505
Decomposition temperature	: No data available
Viscosity, kinematic	: 30000 mm²/s @40°C
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

VOC content	: 225 %
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SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Asphalt (8052-42-4)	
LD50 oral rat	≥ 5000 mg/kg Source: ECHA
LD50 dermal rabbit	> 2000 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 94.4 mg/m ³ Source: ECHA

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LC50 Inhalation - Rat (Dust/Mist)	> 6.82 mg/l Source: ECHA

4-isocyanatosulphonyltoluene, tosyl isocyanate (4083-64-1)	
LD50 oral rat	2234 mg/kg Source: National Library of Medicine
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Remarks on results: other:
LC50 Inhalation - Rat (Vapours)	> 1290 mg/l Source: National Library of Medicine
ATE US (oral)	2234 mg/kg body weight

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)	
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
pH	7 Source: ECHA

Serious eye damage/irritation : Causes eye irritation.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
pH	7 Source: ECHA

Respiratory or skin sensitization : May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer (Inhalation, Dermal, oral).

toluene (108-88-3)	
IARC group	3 - Not classifiable

Asphalt (8052-42-4)	
IARC group	2B - Possibly carcinogenic to humans

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
IARC group	2B - Possibly carcinogenic to humans

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

toluene (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.
butanone, ethyl methyl ketone (78-93-3)	
STOT-single exposure	May cause drowsiness or dizziness.
4-isocyanatosulphonyltoluene, tosyl isocyanate (4083-64-1)	
STOT-single exposure	May cause respiratory irritation.
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure (Inhalation, Dermal, oral).
toluene (108-88-3)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Viscosity, kinematic	: 30000 mm ² /s @40°C
Symptoms/effects after inhalation	: May cause an allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Mild eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Other aquatic organisms [1]	> 100 mg/l Test organisms (species):
EC50 72h - Algae [1]	> 50 mg/l Source: ECHA
LOEC (chronic)	5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
4-isocyanatosulphonyltoluene, tosyl isocyanate (4083-64-1)	
LC50 - Fish [1]	133 mg/l Source: Ecological Structure Activity Relationships
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	30 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	25 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

No additional information available

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.3. Bioaccumulative potential

4-isocyanatosulphonyltoluene, tosyl isocyanate (4083-64-1)

Partition coefficient n-octanol/water (Log Pow)	2.34
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Flammable vapors may accumulate in the container.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No	: UN1263
UN-No. (TDG)	: UN1263
UN-No. (IMDG)	: 1263
UN-No. (IATA)	: 1263

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Paint
Proper Shipping Name (TDG)	: PAINT
Proper Shipping Name (IMDG)	: PAINT
Proper Shipping Name (IATA)	: Paint

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	: 3
Hazard labels (DOT)	: 3



TDG

Transport hazard class(es) (TDG)	: 3
Hazard labels (TDG)	: 3



IMDG

Transport hazard class(es) (IMDG)	: 3
Hazard labels (IMDG)	: 3

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations



IATA

Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3



14.4. Packing group

Packing group (DOT) : II

Packing group (TDG) : II

Packing group (IMDG) : II

Packing group (IATA) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1263

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT Special Provisions (49 CFR 172.102)	: 149 - When transported as a limited quantity or a consumer commodity, the maximum net capacity specified in 173.150(b)(2) of this subchapter for inner packaging may be increased to 5 L (1.3 gallons). 367 - For the purposes of documentation and package marking: a. The proper shipping name "Paint related material" may be used for consignments of packages containing "Paint" and "Paint related material" in the same package; b. The proper shipping name "Paint related material, corrosive, flammable" may be used for consignments of packages containing "Paint, corrosive, flammable" and "Paint related material, corrosive, flammable" in the same package; c. The proper shipping name "Paint related material, flammable, corrosive" may be used for consignments of packages containing "Paint, flammable, corrosive" and "Paint related material, flammable, corrosive" in the same package; and d. The proper shipping name "Printing ink related material" may be used for consignments of packages containing "Printing ink" and "Printing ink related material" in the same package. B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks. B131 - When transported by highway, rail, or cargo vessel, waste Paint and Paint related material (UN1263; PG II and PG III), when in plastic or metal inner packagings of not more than 26.5 L (7 gallons), are excepted from the marking requirements in §172.301(a) and (c) and the labeling requirements in §172.400(a), when further packed in the following specification and non-specification bulk outer packagings and under the following conditions: a. Primary receptacles must conform to the general packaging requirements of subpart B of part 173 of this subchapter and may not leak. If they do leak, they must be overpacked in packagings conforming to the specification requirements of part 178 of this subchapter or in salvage packagings conforming to the requirements in §173.12 of this subchapter. b. Primary receptacles must be further packed in non-specification bulk outer packagings such as cubic yard boxes, plastic rigid-wall bulk containers, dump trailers, and roll-off containers. Bulk outer packagings must be liquid tight through design or by the use of lining materials. c. Primary receptacles may also be further packed in specification bulk outer packagings. Authorized specification bulk outer packagings are UN11G fiberboard intermediate bulk containers (IBC) and UN13H4 woven plastic, coated and with liner flexible intermediate bulk containers (FIBCs) meeting the Packing Group II performance level and lined with a plastic liner of at least 6 mil thickness. d. All inner packagings placed inside bulk outer packagings must be blocked and braced to prevent movement during transportation that could cause the container to open or fall over. Specification IBCs and FIBCs are to be secured to a pallet. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when the flash point of the hazardous material transported is greater than 0 C (32 F). TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 173
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5 L

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 60 L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
TDG	
UN-No. (TDG)	: UN1263
TDG Special Provisions	: 59 - Substances that are listed by name in Schedule 1 must not be transported under this shipping name. Substances transported under this shipping name may contain not more than 20% nitrocellulose if the nitrocellulose contains not more than 12.6% nitrogen (by dry mass), ¹⁴² - The following shipping names may be used to meet the requirements of Part 3 (Documentation) and Part 4 (Dangerous Goods Safety Marks) when these dangerous goods are offered for transport in the same means of containment: (a) "PAINT RELATED MATERIAL" may be used for a means of containment containing both paint and paint related material; (b) "PAINT RELATED MATERIAL, CORROSIVE, FLAMMABLE" may be used for a means of containment containing both paint, corrosive, flammable, and paint related material, corrosive, flammable; (c) "PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE" may be used for a means of containment containing both paint, flammable, corrosive, and paint related material, flammable, corrosive; and (d) "PRINTING INK RELATED MATERIAL" may be used for a means of containment containing both printing ink and printing ink related material.
Explosive Limit and Limited Quantity Index	: 5 L
Excepted quantities (TDG)	: E2
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 5 L
Emergency Response Guide (ERG) Number	: 128
IMDG	
Special provision (IMDG)	: 163, 367
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
Packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP8, TP28
EmS-No. (Fire)	: F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	: S-E - SPILLAGE SCHEDULE Echo - FLAMMABLE LIQUIDS, FLOATING ON WATER
Stowage category (IMDG)	: B
Properties and observations (IMDG)	: Miscibility with water depends upon the composition.
IATA	
PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 353
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
Special provision (IATA)	: A3, A72, A192
ERG code (IATA)	: 3L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 15: Regulatory information**15.1. US Federal regulations**

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
toluene	108-88-3	Present	Active	
Asphalt	8052-42-4	Present	Active	
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]	13463-67-7	Present	Active	
butanone, ethyl methyl ketone	78-93-3	Present	Active	
4-isocyanatosulphonyltoluene, tosyl isocyanate	4083-64-1	Present	Active	
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	101-68-8	Present	Active	

toluene (108-88-3)	
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1000 lb

butanone, ethyl methyl ketone (78-93-3)	
Not subject to reporting requirements of the United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	5000 lb

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)	
Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	5000 lb

15.2. International regulations**CANADA**

toluene (108-88-3)	
Listed on the Canadian DSL (Domestic Substances List)	

Asphalt (8052-42-4)	
Listed on the Canadian DSL (Domestic Substances List)	

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	
Listed on the Canadian DSL (Domestic Substances List)	

butanone, ethyl methyl ketone (78-93-3)	
Listed on the Canadian DSL (Domestic Substances List)	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

4-isocyanatosulphonyltoluene, tosyl isocyanate (4083-64-1)

Listed on the Canadian DSL (Domestic Substances List)

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

toluene (108-88-3)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Asphalt (8052-42-4)

Listed on IARC (International Agency for Research on Cancer)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)

Listed on IARC (International Agency for Research on Cancer)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

butanone, ethyl methyl ketone (78-93-3)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

toluene (108-88-3)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
No	Yes	No	No		7000 $\mu\text{g/day}$

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 3/22/2023

Full text of H-phrases

H225	Highly flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases	
H320	Causes eye irritation
H332	Harmful if inhaled
H334	May cause an allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

Safety Data Sheet (SDS), USA - Toxyscan

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.