

## Safety Data Sheet

### POLYTACK

Safety Data Sheet dated: 6/24/2016 - version 1

Date of first edition: 6/24/2016

## 1. IDENTIFICATION

### Product identifier

Mixture identification:

Trade name: POLYTACK

### Recommended use of the chemical and restrictions on use

Recommended use: Adhesive

Restrictions on use: N.A.

### Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Company: Polyglass U.S.A. Inc.

1111 West Newport Center Drive

33442 - Deerfield Beach - FL - USA

Phone: 866-222-9782

### Emergency 24 hour numbers:

(USA) CHEMTREC 1-800-424-9300

(Canada) CANUTEC 1-613-996-6666

## 2. HAZARD(S) IDENTIFICATION



### Classification of the chemical

Flam. Liq. 2	Highly flammable liquid and vapour.
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2A	Causes serious eye irritation.
Repr. 2	Suspected of damaging fertility. Suspected of damaging the unborn child.
STOT SE 3	May cause drowsiness or dizziness.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure if inhaled.
Aquatic Acute 3	Harmful to aquatic life.
Aquatic Chronic 3	Harmful to aquatic life with long lasting effects.

### Label elements

#### Hazard pictograms:



Danger

Code	Description
H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373.A	May cause damage to organs through prolonged or repeated exposure if inhaled.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Code	Description
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P240	Ground/bond container and receiving equipment.

P241.1	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260.1	Do not breathe mist/vapours/spray.
P264.2	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353.1	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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.
P312.A	Call a POISON CENTER if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P321.A	Specific treatment (see supplementary instructions on this label).
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378.D	In case of fire, use a foam fire extinguisher to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501.A	Dispose of contents/container in accordance with applicable regulations.

**Ingredient(s) with unknown acute toxicity:**

None

**Hazards not otherwise classified identified during the classification process:**

None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substances**

N.A.

**Mixtures**

Hazardous components within the meaning of 29 CFR 1910.1200 and related classification:

**List of components**

<b>Quantity</b>	<b>Name</b>	<b>Ident. Numb.</b>	<b>Classification</b>
10-25 %	Toluene	CAS:108-88-3	Flam. Liq. 2, H225; Skin Irrit. 2, H315; Repr. 2, H361; STOT SE 3, H336; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Acute 2, H401; Aquatic Chronic 3, H412
10-25 %	TERT-BUTYL ACETATE	CAS:540-88-5	Flam. Liq. 2, H225; Acute Tox. 4, H332; STOT SE 3, H336; Aquatic Acute 3, H402
10-25 %	ACETONE	CAS:67-64-1	Flam. Liq. 2, H225; Eye Irrit. 2A, H319; STOT SE 3, H336
5-10 %	n-HEXANE	CAS:110-54-3	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Repr. 2, H361; STOT RE 2, H373; Aquatic Chronic 2, H411
1-2.5 %	1-Chloro-4-(trifluoromethyl)benzene	CAS:98-56-6 EC:202-681-1	Flam. Liq. 3, H226; STOT SE 3, H336; STOT RE 2, H373

**4. FIRST AID MEASURES**

**Description of first aid measures**

In case of skin contact:

Immediately take off all contaminated clothing.  
Remove contaminated clothing immediately and dispose of safely.  
After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

#### **Most important symptoms/effects, acute and delayed**

Eye irritation

Eye damages

Skin Irritation

Erythema

#### **Indication of any immediate medical attention and special treatment needed**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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## **5. FIRE-FIGHTING MEASURES**

### **Extinguishing media**

Suitable extinguishing media:

### **Unsuitable extinguishing media:**

None in particular.

### **Specific hazards arising from the chemical**

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

### **Special protective equipment and precautions for fire-fighters**

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions, protective equipment and emergency procedures**

Wear personal protection equipment.

Remove all sources of ignition.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

### **Methods and material for containment and cleaning up**

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

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## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exercise the greatest care when handling or opening the container.

Do not use on extensive surface areas in premises where there are occupants.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

### **Conditions for safe storage, including any incompatibilities**

Storage temperature: N.A.

Always keep in a well ventilated place.

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Avoid accumulating electrostatic charge.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Cool and adequately ventilated.

Safety electric system.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### List of components with OEL value

Component	OEL Type	Country	Ceiling	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Behaviour	Note
Toluene	OSHA				200				A4 - Not Classifiable as a Human Carcinogen;female reproductive; pregnancy loss;visual impairment;
	ACGIH				20				
	OSHA		C				300		
TERT-BUTYL ACETATE	EU		192	50		384	100	Indicative	Possibility of significant uptake through the skin;
	OSHA		950	200					eye and upper respiratory tract irritation;
	ACGIH			200					
ACETONE	OSHA		2400	1000					A4 - Not Classifiable as a Human Carcinogen;CNS impairment;eye and upper respiratory tract irritation; hematologic effects;
	ACGIH			500			750		
	EU		1210	500				Indicative	
n-HEXANE	OSHA		1800	500					Skin - potential significant contribution to overall exposure by the cutaneous route;CNS impairment;eye irritation;peripheral neuropathy;
	ACGIH			50					
	EU		72	20				Indicative	

#### Biological Exposure Index

CAS-No.	Component	Value	UoM	Medium	Biological Indicator	Sampling Period
108-88-3	Toluene	0,02	mg/L	Blood	Toluene	Before last turn of the working week
		0,03	mg/L	Urine	Toluene	End of turn
		0,3	MGGCREAT	Urine	O-Cresol	End of turn
67-64-1	ACETONE	50	mg/L	Urine	Acetone	End of turn
110-54-3	n-HEXANE	0,4	mg/L	Urine	Hexanedione	End of turn; End of working week

Appropriate engineering controls: N.A.

## Individual protection measures

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Use adequate protective respiratory equipment.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state: Liquid

Appearance and colour: blue

Odour: like: Acetone

Odour threshold: N.A.

pH: N.A.

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: -6 °C (21 °F)

Evaporation rate: N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour density: N.A.

Vapour pressure: N.A.

Relative density: 0.96 g/cm<sup>3</sup>

Solubility in water: N.A.

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: N.A.

Decomposition temperature: N.A.

Viscosity: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

Solid/gas flammability: N.A.

### Other information

Substance Groups relevant properties N.A.

Miscibility: N.A.

Fat Solubility: N.A.

Conductivity: N.A.

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## 10. STABILITY AND REACTIVITY

### Reactivity

It may generate dangerous reactions (See subsections below)

### Chemical stability

It may generate dangerous reactions (See subsections below)

### Possibility of hazardous reactions

None.

### Conditions to avoid

Avoid accumulating electrostatic charge.

### Incompatible materials

Avoid contact with combustible materials. The product could catch fire.

### Hazardous decomposition products

None.

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## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Toxicological information of the mixture:

There is no toxicological data available on the mixture. Consider the individual concentration of each component to assess toxicological effects resulting from exposure to the mixture.

#### Toxicological information on main components of the mixture:

Toluene	a) acute toxicity	LD50 Skin Rabbit = 8390 mg/kg LC50 Inhalation Rat = 125 mg/l 4h LD50 Oral Rat = 636 mg/kg LD50 Skin Rat = 12124,00000 ml/kg LC50 Inhalation Rat > 26700,00000 ppm 1h
TERT-BUTYL ACETATE	a) acute toxicity	LD50 Oral Rat = 4100 mg/kg LC50 Inhalation Rat > 2230 mg/m3 4h
ACETONE	a) acute toxicity	LC50 Inhalation Rat = 50100 mg/m3 8h
n-HEXANE	a) acute toxicity	LD50 Skin Rabbit = 3000 mg/kg LC50 Inhalation Rat = 48000 ppm 4h
1-Chloro-4-(trifluoromethyl)benzene	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat > 45
	a) acute toxicity	LD50 Oral Rat 13000 mg/kg LC50 Inhalation Mouse 20 mg/l LD50 Skin Rabbit > 2 mg/kg LD50 Skin Rabbit > 2 ml/kg LC50 Inhalation Rat = 33 mg/l 4h LD50 Oral Rat = 13 g/kg

**If not differently specified, the information required in the regulation and listed below must be considered as N.A.**

- a) acute toxicity
- b) skin corrosion/irritation
- c) serious eye damage/irritation
- d) respiratory or skin sensitisation
- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard

**Substance(s) listed on the IARC Monographs:**

Toluene Group 3

**Substance(s) listed as OSHA Carcinogen(s):**

None

**Substance(s) listed as NIOSH Carcinogen(s):**

None

**Substance(s) listed on the NTP report on Carcinogens:**

None

## 12. ECOLOGICAL INFORMATION

### Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

### List of components with eco-toxicological properties

Quantity	Component	Ident. Numb.	Ecotox Infos
10-25 %	Toluene	CAS: 108-88-3	LC50 a) Aquatic acute toxicity Fish Pimephales promelas 1522 mg/L 96h EPA  LC50 a) Aquatic acute toxicity Fish Oncorhynchus mykiss 589 mg/L 96h EPA

			LC50 a) Aquatic acute toxicity Fish Lepomis macrochirus 11 mg/L 96h EPA
			LC50 a) Aquatic acute toxicity Fish Oryzias latipes = 54 mg/L 96h EPA
			LC50 a) Aquatic acute toxicity Fish Poecilia reticulata = 282 mg/L 96h EPA
			EC50 a) Aquatic acute toxicity Daphnia Daphnia magna 546 mg/L 48h EPA
			EC50 a) Aquatic acute toxicity Algae Pseudokirchneriella subcapitata > 433 mg/L 96h IUCLID
			EC50 a) Aquatic acute toxicity Algae Pseudokirchneriella subcapitata = 125 mg/L 72h EPA
10-25 %	TERT-BUTYL ACETATE	CAS: 540-88-5	LC50 a) Aquatic acute toxicity Fish Pimephales promelas 296 mg/L 96h EPA
10-25 %	ACETONE	CAS: 67-64-1	LC50 a) Aquatic acute toxicity Fish Oncorhynchus mykiss 474 mg/L 96h EPA
			LC50 a) Aquatic acute toxicity Fish Pimephales promelas 6210 mg/L 96h IUCLID
			LC50 a) Aquatic acute toxicity Fish Lepomis macrochirus = 8300 mg/L 96h EPA
			EC50 a) Aquatic acute toxicity Daphnia Daphnia magna 10294 mg/L 48h EPA
			LC50 G Avian Phasianus colchicus > 40000 ppm 5d IUCLID
			LC50 G Avian Coturnix coturnix japonica > 40000 ppm 5d IUCLID
			LC50 d) Terrestrial toxicity Worm Eisenia foetida 200 µg/cm <sup>2</sup> 48h IUCLID
5-10 %	n-HEXANE	CAS: 110-54-3	LC50 a) Aquatic acute toxicity Fish Pimephales promelas 21 mg/L 96h EPA
1-2.5 %	1-Chloro-4-(trifluoromethyl)benzene	CAS: 98-56-6 - EINECS: 202-681-1	LC50 Fish Lepomis macrochirus = 11,4 mg/L 72h UNION CARBIDE CORP. ENVIRONMENTAL SERVICES-THE ACUTE TOXICITY OF PCBTF TO BLUEGILL SUN FISH UCES PROJECT NÂ° 11506-81-07-1979-N.Y.TARRY TOWN. ca.11.4 ca.14.1 mg/L
			LOEC Fish Pimephales promelas 1,4 mg/L „E G & G , BIONOMICS, AQUATIC TOXICOLOGY LABORATORY-THE TOXICITY OF PCBTF TO FATHEAD MINNOW EMBRIOS AND LARVAE - REPORT B W - 81-3-838, 1981, WAREHAM IN EPA DOCUMENT NÂ° 40-8152019.
			NOEC Fish Pimephales promelas 0,54 mg/L „E G & G , BIONOMICS, AQUATIC TOXICOLOGY LABORATORY-THE TOXICITY OF PCBTF TO FATHEAD MINNOW EMBRIOS AND LARVAE - REPORT B W - 81-3-838, 1981, WAREHAM IN EPA DOCUMENT NÂ° 40-8152019.
			EC50 Daphnia Daphnia magna = 0,12 mg/L 4d 1/6 2/6 PRESI DA UNION CARBIDE CORP. ENVIRONMENTAL SERVICES-THE ACUTE TOXICITY OF PCBTF TO THE WATER FLEA DAPHNIA MAGNA STRAUS UCES PROJECT NÂ° 11506-81-06-1979- N.Y. TARRY TOWN IN EPA DOCUMENT NÂ° 40-7952015. 4/6 5/6 PRESI DA PECE P. - DETERMINAZI ca.0.12 ca.0.222 mg/L
			EC100 Daphnia Daphnia magna 4,92 mg/L 48h
			EC50 Daphnia Daphnia magna = 10,7 mg/L 48h ca.10.7 ca.14.5 mg/L
			EC50 a) Aquatic acute toxicity Daphnia Daphnia magna = 368 mg/L 48h IUCLID

#### Persistence and degradability

N.A.

#### Bioaccumulative potential

N.A.

#### Mobility in soil

N.A.

**Other adverse effects**

N.A.

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**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

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**14. TRANSPORT INFORMATION**

**UN number**

ADR-UN number: 1133

DOT-UN Number: UN1133

IATA-Un number: 1133

IMDG-Un number: 1133

**UN proper shipping name**

ADR-Shipping Name: ADHESIVES (Toluene - TERT-BUTYL ACETATE)

DOT-Proper Shipping Name: Adhesives, containing a flammable liquid (Toluene - TERT-BUTYL ACETATE)

IATA-Technical name: ADHESIVES containing flammable liquid (Toluene - TERT-BUTYL ACETATE)

IMDG-Technical name: ADHESIVES containing flammable liquid (Toluene - TERT-BUTYL ACETATE)

**Transport hazard class(es)**

ADR-Class: 3

DOT-Hazard Class: 3

IATA-Class: 3

IMDG-Class: 3

**Packing group**

ADR-Packing Group: II

DOT-Packing group: II

IATA-Packing group: II

IMDG-Packing group: II

**Environmental hazards**

Marine pollutant: No

Environmental Pollutant: N.A.

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

N.A.

**Special precautions**

Department of Transportation (DOT):

DOT-Special Provision(s): 149, B52, IB2, T4, TP1, TP8

DOT-Label(s): 3

DOT-Symbol: N/A

DOT-Cargo Aircraft: N/A

DOT-Passenger Aircraft: N/A

DOT-Bulk: N/A

DOT-Non-Bulk: N/A

Road and Rail (ADR-RID):

ADR exempt: No

ADR-Label: 3

ADR-Hazard identification number: 33

ADR-Transport category (Tunnel restriction code): 2 (D/E)

Air (IATA):

IATA-Passenger Aircraft: 353

IATA-Cargo Aircraft: 364

IATA-Label: 3

IATA-Subrisk: -

IATA-Erg: 3L

IATA-Special Provisions: A3

Sea (IMDG):

IMDG-Stowage Code: Category B

IMDG-Stowage Note: -



IMDG-Subrisk: -

IMDG-Special Provisions: -

IMDG-Page: N/A

IMDG-Label: N/A

IMDG-EMS: F-E, S-D

IMDG-MFAG: N/A

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## 15. REGULATORY INFORMATION

### USA - Federal regulations

#### TSCA - Toxic Substances Control Act

##### TSCA inventory:

All the components are listed on the TSCA inventory

##### TSCA listed substances:

Toluene	is listed in TSCA	Section 8b
TERT-BUTYL ACETATE	is listed in TSCA	Section 8b Section 8a - PAIR
ACETONE	is listed in TSCA	Section 8b
n-HEXANE	is listed in TSCA	Section 8b
1-Chloro-4-(trifluoromethyl)benzene	is listed in TSCA	Section 8b Section 8a - PAIR Section 12b

#### SARA - Superfund Amendments and Reauthorization Act

##### Section 302 - Extremely Hazardous Substances:

no substances listed

##### Section 304 - Hazardous substances:

Toluene  
TERT-BUTYL ACETATE  
n-HEXANE

##### Section 313 - Toxic chemical list:

Toluene  
n-HEXANE

#### CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

##### Substance(s) listed under CERCLA:

Toluene	Reportable quantity:	1000	pounds
TERT-BUTYL ACETATE	Reportable quantity:	5000	pounds
ACETONE	Reportable quantity:	5000	pounds
n-HEXANE	Reportable quantity:	5000	pounds

#### CAA - Clean Air Act

##### CAA listed substances:

Toluene	is listed in CAA	Section 112(b) - HAP	Section 112(b) - HON
ACETONE	is listed in CAA	Section 112(b) - HON	
n-HEXANE	is listed in CAA	Section 112(b) - HAP	Section 112(b) - HON

#### CWA - Clean Water Act

##### CWA listed substances:

Toluene	is listed in CWA	Section 307	Section 311
TERT-BUTYL ACETATE	is listed in CWA	Section 311	

### USA - State specific regulations

#### California Proposition 65

##### Substance(s) listed under California Proposition 65:

Toluene	Listed as reproductive toxicant
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#### Massachusetts Right to know

##### Substance(s) listed under Massachusetts Right to know:

Toluene  
TERT-BUTYL ACETATE  
ACETONE  
n-HEXANE

**Pennsylvania Right to know**

**Substance(s) listed under Pennsylvania Right to know:**

Toluene  
TERT-BUTYL ACETATE  
ACETONE  
n-HEXANE

**New Jersey Right to know**

**Substance(s) listed under New Jersey Right to know:**

Toluene  
TERT-BUTYL ACETATE  
ACETONE  
n-HEXANE

**Canada - Federal regulations**

**DSL - Domestic Substances List**

**DSL Inventory:**

All the substances are listed in the DSL.

**NDSL - Non Domestic Substances List**

**NDSL Inventory:**

no substances listed

**NPRI - National Pollutant Release Inventory**

**Substances listed in NPRI:**

no substances listed

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**16. OTHER INFORMATION**

<b>Code</b>	<b>Description</b>
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child .
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure .
H373.A	May cause damage to organs through prolonged or repeated exposure if inhaled.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet dated: 6/24/2016 - version 1

Product code: 9028253

**Additional classification information**



HMIS Health: 1 = Slight

HMIS Health - Is health hazard chronic? Yes

HMIS Flammability: 3 = Flammable liquid

HMIS Reactivity: 1 = Slight

HMIS P.P.E.: Safety glasses, gloves

NFPA Health: 1 = Slight

NFPA Flammability: 3 = Flammable liquid

NFPA Reactivity: 1 = Slight

NFPA Special Risk: N.A.

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. The information herein is presented in good faith and believed to be accurate as of the effective date given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

This document was prepared by a competent person who has received appropriate training.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

**Legend to abbreviations and acronyms used in the safety data sheet:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

CLP: Classification, Labeling, Packaging.

EINECS: European Inventory of Existing Commercial Chemical Substances.

INCI: International Nomenclature of Cosmetic Ingredients.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

GefStoffVO: Ordinance on Hazardous Substances, Germany.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

DNEL: Derived No Effect Level.

PNEC: Predicted No Effect Concentration.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

WGK: German Water Hazard Class.

KSt: Explosion coefficient.