

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

## Pur Fill

Revision date: 29.05.2019

Page 1 of 9

### 1. Identification

#### Product identifier

Pur Fill

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

##### Use of the substance/mixture

Adhesives, sealants

#### Details of the supplier of the safety data sheet

Company name:	Todol Products	
Street:	25 Washington Ave	
Place:	USA Natick, MA 01760	
Post-office box:	PO BOX 398	
	USA Natick, MA 01760	
Telephone:	1-800-252-3818	Telefax: 508-651-0729
e-mail:	info@todol.com	

**Emergency phone number:** 24/7 USA: 800-535-5053  
24/7 Global: 352-323-3500

### 2. Hazard(s) identification

#### Classification of the chemical

##### 29 CFR Part 1910.1200

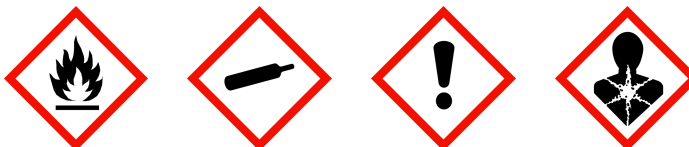
Flammable aerosols: Flam. Aerosol 1  
 Gases under pressure: Compressed gas  
 Skin corrosion/irritation: Skin Irrit. 2  
 Serious eye damage/eye irritation: Eye Irrit. 2A  
 Respiratory or skin sensitization: Resp. Sens. 1  
 Respiratory or skin sensitization: Skin Sens. 1  
 Carcinogenicity: Carc. 2  
 Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)  
 Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

#### Label elements

##### 29 CFR Part 1910.1200

**Signal word:** Danger

#### Pictograms:



#### Hazard statements

Extremely flammable aerosol  
 Contains gas under pressure; may explode if heated  
 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

#### Precautionary statements

If medical advice is needed, have product container or label at hand.

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

## Pur Fill

Revision date: 29.05.2019

Page 2 of 9

Keep out of reach of children.  
 Read label before use.  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Do not spray on an open flame or other ignition source.  
 Pressurized container: Do not pierce or burn, even after use.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Wash hands thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Wear respiratory protection.  
 If on skin: Wash with plenty of water.  
 Take off contaminated clothing and wash it before reuse.  
 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.  
 If exposed or concerned: Get medical advice/attention.  
 Store in a well-ventilated place. Keep container tightly closed.  
 Store locked up.  
 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
 Dispose of contents/container to an appropriate recycling or disposal facility.

### Hazards not otherwise classified

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

### 3. Composition/information on ingredients

#### Mixtures

#### Hazardous components

CAS No	Components	Quantity
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	5 - < 20 %
13674-84-5	Tris (2-Chloroisopropyl) Phosphate	10 - < 20 %
86675-46-9	Halogenated Polyether polyole	< 2 %

### 4. First-aid measures

#### Description of first aid measures

##### General information

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

##### After inhalation

Provide fresh air.

##### After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

##### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

## Pur Fill

Revision date: 29.05.2019

Page 3 of 9

### After ingestion

Do NOT induce vomiting. Call a physician immediately.

### Most important symptoms and effects, both acute and delayed

May cause sensitization by inhalation and skin contact.

Danger of sticking eyes and skin due to curing foam.

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

First Aid, decontamination, treatment of symptoms.

---

## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder

#### Unsuitable extinguishing media

Full water jet

### Specific hazards arising from the chemical

In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>), Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon dioxide (CO<sub>2</sub>), Carbon monoxide.

Vapors may form explosive mixtures with air.

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

In case of fire and/or explosion do not breathe fumes. Wear a self-contained breathing apparatus and chemical protective clothing.

### Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

---

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Remove all sources of ignition.

Avoid contact with skin, eyes and clothes. Do not breathe vapor or spray.

### Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### Methods and material for containment and cleaning up

Provide adequate ventilation. Allow stiffening. Take up mechanically.

### Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

---

## 7. Handling and storage

### Precautions for safe handling

#### Advice on safe handling

Provide adequate ventilation as well as local exhaust at critical locations. Do not use in enclosed rooms.

#### Advice on protection against fire and explosion

Pressurised container: May burst if heated. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.

Vapors may form explosive mixtures with air. Take precautionary measures against static discharges.

### Conditions for safe storage, including any incompatibilities

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

## Pur Fill

Revision date: 29.05.2019

Page 4 of 9

### Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place.

### Hints on joint storage

Do not store together with: Oxidising agent

### Further information on storage conditions

15 - 23 °C. Storage above 23 °C will reduce shelf life significantly, depending on temperature and duration.

## 8. Exposure controls/personal protection

### Control parameters

### Exposure limits

CAS No.	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
75-28-5	Isobutane	800	1900		TWA (8 h)	REL
74-98-6	Propane	1000	1800		TWA (8 h)	REL
		1000	1800		TWA (8 h)	REL

### Exposure controls



#### Appropriate engineering controls

Personal protective equipment has to be chosen in accordance with workplace specific conditions, e. g. concentration of the product. Chemical resistance has to be clarified with the supplier of protective equipment.

#### Protective and hygiene measures

Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately.

#### Eye/face protection

Wear eye/face protection.

#### Hand protection

Suitable material: Butyl caoutchouc (butyl rubber)

Thickness of the glove material 0,4 mm

Breakthrough time (maximum wearing time) > 480 min.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

#### Skin protection

Wear anti-static footwear and clothing

#### Respiratory protection

Respiratory protection necessary at:

Particle filter device (DIN EN 143).

#### Environmental exposure controls

See section 7. No additional measures necessary.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state:

Color:

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### Pur Fill

Revision date: 29.05.2019

Page 5 of 9

Odor: characteristic  
 pH-Value: not applicable

**Changes in the physical state**

Melting point/freezing point: not applicable  
 Initial boiling point and boiling range: not applicable  
 Flash point: not applicable

**Flammability**

Solid: not applicable  
 Gas: not applicable

**Explosive properties**

In use, may form flammable/explosive vapor-air mixture.

Lower explosion limits: 1,5 vol. %  
 Upper explosion limits: 26,2 vol. %  
 Ignition temperature: > 230 °C

**Auto-ignition temperature**

Solid: not applicable  
 Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties**

Not oxidising.

Vapor pressure: 5500 - 6000 hPa  
 Density: not determined  
 Water solubility: practically insoluble

**Solubility in other solvents**

not determined

Partition coefficient: not determined  
 Viscosity / dynamic: not applicable  
 Viscosity / kinematic: not applicable  
 Vapor density: not determined  
 Evaporation rate: not determined

**Other information**

none/none

**10. Stability and reactivity**

**Reactivity**

There are no data available on the mixture itself.

**Chemical stability**

Stability: Stable

The product is stable under storage at normal ambient temperatures.

**Possibility of hazardous reactions**

Hazardous reactions: May occur

Oxidising agent, strong.

In use, may form flammable/explosive vapor-air mixture.

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### Pur Fill

Revision date: 29.05.2019

Page 6 of 9

**Conditions to avoid**

Do not expose to temperatures above 50 °C. Heating causes rise in pressure with risk of bursting.

**Incompatible materials**

Exothermic reaction with: Oxidising agent, strong.

**Hazardous decomposition products**

Nitrogen oxides (NOx), Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon dioxide (CO2), Carbon monoxide

## 11. Toxicological information

**Information on toxicological effects**

**Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

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

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues				
	oral	LD50 >10000 mg/kg	Rat		
	dermal	LD50 > 10000 mg/kg	Rabbit		
	inhalation vapour	ATE 11 mg/l			
	inhalation aerosol	ATE 1,5 mg/l			
13674-84-5	Tris (2-Chloroisopropyl) Phosphate				
	oral	LD50 630 - 2000 mg/kg	Rat	Manufacturer	
	dermal	LD50 > 5000 mg/kg	Rabbit	Manufacturer	OECD 402
86675-46-9	Halogenated Polyether polyole				
	oral	LD50 917 mg/kg	Rat		

**Irritation and corrosivity**

Causes skin irritation  
Causes serious eye irritation

**Sensitizing effects**

May cause allergy or asthma symptoms or breathing difficulties if inhaled (Diphenylmethanediisocyanate, isomers and homologues)  
May cause an allergic skin reaction (Diphenylmethanediisocyanate, isomers and homologues)  
Does not apply to the cured foam.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of causing cancer (Diphenylmethanediisocyanate, isomers and homologues)  
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.

**Specific target organ toxicity (STOT) - single exposure**

May cause respiratory irritation (Diphenylmethanediisocyanate, isomers and homologues)

**Specific target organ toxicity (STOT) - repeated exposure**

May cause damage to organs through prolonged or repeated exposure (Diphenylmethanediisocyanate, isomers and homologues)

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

## Pur Fill

Revision date: 29.05.2019

Page 7 of 9

Carcinogenicity (OSHA): No ingredient of this mixture is listed.  
 Carcinogenicity (IARC): Polymethylene polyphenyl isocyanate (CAS 9016-87-9) is listed in group 3.  
 Carcinogenicity (NTP): No ingredient of this mixture is listed.

**Aspiration hazard**

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

## 12. Ecological information

**Ecotoxicity**

There are no data available on the mixture itself.

**Persistence and degradability**

There are no data available on the mixture itself.

**Bioaccumulative potential**

There are no data available on the mixture itself.

**Mobility in soil**

There are no data available on the mixture itself.

**Other adverse effects**

none/none

## 13. Disposal considerations

**Waste treatment methods**

**Advice on disposal**

Dispose of waste according to applicable legislation.

## 14. Transport information

**US DOT 49 CFR 172.101**

**UN/ID number:** UN 1950  
**Proper shipping name:** Aerosols, flammable, (each not exceeding 1 L capacity)  
**Transport hazard class(es):** 2.1  
**Packing group:** -  
**Hazard label:** 2.1

**Marine transport (IMDG)**

**UN number:** UN 1950  
**UN proper shipping name:** AEROSOLS  
**Transport hazard class(es):** 2.1  
**Packing group:** -  
**Hazard label:** 2.1



**Marine pollutant:** -  
**Limited quantity:** 1000 mL  
**Excepted quantity:** E0  
**EmS:** F-D, S-U

**Air transport (ICAO-TI/IATA-DGR)**

**UN number:** UN 1950  
**UN proper shipping name:** AEROSOLS

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

## Pur Fill

Revision date: 29.05.2019

Page 8 of 9

**Transport hazard class(es):** 2.1  
**Packing group:** -  
**Hazard label:** 2.1



Limited quantity Passenger: 30 kg G  
 Passenger LQ: Y203  
 Excepted quantity: E0  
 IATA-packing instructions - Passenger: 203  
 IATA-max. quantity - Passenger: 75 kg  
 IATA-packing instructions - Cargo: 203  
 IATA-max. quantity - Cargo: 150 kg

### Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

### Special precautions for user

see chapter 6 - 8

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

not relevant

## 15. Regulatory information

### U.S. Regulations

#### National regulatory information

SARA Section 311/312 Hazards:

Polymeric diphenylmethane diisocyanate (9016-87-9): Delayed (chronic) health hazard, Immediate (acute) health hazard

Tris (2-Chloroisopropyl) Phosphate (13674-84-5): Immediate (acute) health hazard

Isobutane (75-28-5): Fire hazard

Propane (74-98-6): Fire hazard

Halogenated Polyether polyole (86675-46-9): Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Polymeric diphenylmethane diisocyanate (9016-87-9): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(r):

Isobutane (75-28-5): Threshold quantities = 10,000 lbs.

Propane (74-98-6): Threshold quantities = 10,000 lbs.

#### SARA

Section 313 Toxic Release Chemicals

Polymeric diphenylmethane diisocyanate (CAS 9016-87-9).

### State Regulations

#### Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

#### Additional information

CAS No. 86675-46-9 registered in TSCA as CAS No. 68441-62-3.

## 16. Other information

### Hazardous Materials Information Label (HMIS)

Health: 3



## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### Pur Fill

Revision date: 29.05.2019

Page 9 of 9

Flammability:	3
Physical Hazard:	0
Personal Protection:	X

**NFPA Hazard Ratings**

Health:	3
Flammability:	3
Reactivity:	0
Unique Hazard:	



Revision date: 29.05.2019

Revision No: 9,04

**Other data**

Data sources: Data arise from reference works and literature.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

---

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

**PU Cleaner**

Print date: 22.01.2015

Page 1 of 10

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

PU Cleaner

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Use of the substance/mixture**

Washing and cleaning products (including solvent based products)

**1.3. Details of the supplier of the safety data sheet**

Company name: HAGO Chemotechnik GmbH & Co. KG  
 Street: Bodenseestr. 217  
 Place: D-81243 München  
 Telephone: +49 (0)89 897702-0  
 e-mail: msds@hago.de  
 Internet: www.hago.de

**1.4. Emergency telephone number:** public emergency number

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Directive 67/548/EEC or 1999/45/EC**

Indications of danger: F+ - Extremely flammable, Xi - Irritant  
 R phrases:  
 Extremely flammable.  
 Irritating to eyes.  
 Repeated exposure may cause skin dryness or cracking.  
 Vapours may cause drowsiness and dizziness.

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard categories:  
 Aerosol: Aerosol 1  
 Serious eye damage/eye irritation: Eye Irrit. 2  
 Specific target organ toxicity - single exposure: STOT SE 3  
 Hazard Statements:  
 Extremely flammable aerosol.  
 Pressurised container: May burst if heated.  
 Causes serious eye irritation.  
 May cause drowsiness or dizziness.

**2.2. Label elements**

**Hazardous components which must be listed on the label**

acetone; propan-2-one; propanone  
 propan-2-ol; isopropyl alcohol; isopropanol

Signal word: Danger  
 Pictograms: GHS02-GHS07



**Hazard statements**

H222                      Extremely flammable aerosol.

**PU Cleaner**

Print date: 22.01.2015

Page 2 of 10

- H229 Pressurised container: May burst if heated.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.

**Precautionary statements**

- P102 Keep out of reach of children.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P211 Do not spray on an open flame or other ignition source.
- P251 Do not pierce or burn, even after use.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- 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.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

**Special labelling of certain mixtures**

- EUH066 Repeated exposure may cause skin dryness or cracking.

**2.3. Other hazards**

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Hazardous components**

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
200-662-2	acetone; propan-2-one; propanone	25 - < 50 %
67-64-1	F - Highly flammable, Xi - Irritant R11-36-66-67	
606-001-00-8	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066	
200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	25 - < 50 %
67-63-0	F - Highly flammable, Xi - Irritant R11-36-67	
603-117-00-0	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
204-065-8	dimethyl ether	10 - < 25 %
115-10-6	F+ - Extremely flammable R12	
603-019-00-8	Flam. Gas 1; H220	
01-2119472128-37		
200-857-2	isobutane	10 - < 25 %
75-28-5	F+ - Extremely flammable R12	
601-004-00-0	Flam. Gas 1; H220	
200-827-9	propane	2.5 - < 10 %
74-98-6	F+ - Extremely flammable R12	
601-003-00-5	Flam. Gas 1; H220	

Full text of R-, H- and EUH-phrases: see section 16.

**SECTION 4: First aid measures**

**PU Cleaner**

Print date: 22.01.2015

Page 3 of 10

**4.1. Description of first aid measures**

**General information**

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

**After inhalation**

Provide fresh air. In case of irregular breathing or respiratory arrest provide artificial respiration.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

**After contact with eyes**

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

**After ingestion**

Do NOT induce vomiting. Call a physician immediately. Have victim drink large quantities of water, with active charcoal if possible.

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

Headache. Dizziness. Nausea. Has degreasing effect on the skin. Made worse through the drinking of alcohol beverages.

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

First Aid, decontamination, treatment of symptoms.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Carbon dioxide (CO2), Foam, Extinguishing powder

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

In case of fire may be liberated: Carbon dioxide (CO2), Carbon monoxide. Vapours may form explosive mixtures with air.

**5.3. Advice for firefighters**

In case of fire and/or explosion do not breathe fumes. Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Remove all sources of ignition. Avoid contact with skin, eyes and clothes. Do not breathe vapour/aerosol.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**6.3. Methods and material for containment and cleaning up**

Provide adequate ventilation. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

**6.4. Reference to other sections**

Treat the recovered material as prescribed in the section on waste disposal. Handling, Personal protection equipment: See protective measures under point 7 and 8.

**PU Cleaner**

Print date: 22.01.2015

Page 4 of 10

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Provide adequate ventilation as well as local exhaustion at critical locations. Do not use in enclosed rooms.

**Advice on protection against fire and explosion**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children. Vapours can form explosive mixtures with air. Take precautionary measures against static discharge.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep in a cool, well-ventilated place.

**Advice on storage compatibility**

Do not store together with: Oxidising agent

**Further information on storage conditions**

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

**7.3. Specific end use(s)**

not applicable

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
67-64-1	Acetone	500	1210		TWA (8 h)	WEL
		1500	3620		STEL (15 min)	WEL
115-10-6	Dimethyl ether	400	766		TWA (8 h)	WEL
		500	958		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

**8.2. Exposure controls**

**Appropriate engineering controls**

Personal protective equipment has to be chosen in accordance with workplace specific conditions, e.g. concentration of the product. Chemical resistance has to be clarified with the supplier of protective equipment.

**Protective and hygiene measures**

Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately.

**Eye/face protection**

Tightly sealed safety glasses.

**Hand protection**

Tested protective gloves are to be worn: NBR (Nitrile rubber). FKM (fluororubber). The quality of the

**PU Cleaner**

Print date: 22.01.2015

Page 5 of 10

protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

**Skin protection**

Protective clothing: Solvent-proof.

**Respiratory protection**

Respiratory protection necessary at: insufficient ventilation.

Suitable respiratory protective equipment: gas filtering equipment (EN 141).

**Environmental exposure controls**

See chapter 7. No additional measures necessary.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state: Aerosol  
 Colour: colourless  
 Odour: characteristic

**Test method**

pH-Value: not determined

**Changes in the physical state**

Melting point: not applicable  
 Initial boiling point and boiling range: not applicable  
 Flash point: not determined

**Explosive properties**

not explosive. In use, may form flammable/explosive vapour-air mixture.

Lower explosion limits: 1,5 vol. %  
 Upper explosion limits: 14,3 vol. %  
 Ignition temperature: 460 °C  
 Vapour pressure: 2500 - 2900 hPa  
 (at 20 °C)  
 Density: 0,74 - 0,76 g/cm³  
 Water solubility: partially miscible  
 Viscosity / dynamic: not determined  
 Viscosity / kinematic: not determined  
 Vapour density: not determined  
 Evaporation rate: not determined

**9.2. Other information**

none

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Exothermic reaction with: Oxidising agent, strong

**PU Cleaner**

Print date: 22.01.2015

Page 6 of 10

**10.4. Conditions to avoid**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

**10.5. Incompatible materials**

Oxidizing agents, strong.

**10.6. Hazardous decomposition products**

Carbon dioxide (CO<sub>2</sub>), Carbon monoxide.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

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

**Acute toxicity**

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
67-64-1	acetone; propan-2-one; propanone				
	oral	LD50	5800 mg/kg	Rat	RTECS
	dermal	LD50	20000 mg/kg	Rabbit	IUCLID
	inhalative (4 h) vapour	LC50	76 mg/l	Rat	
115-10-6	dimethyl ether				
	inhalative (4 h) gas	LC50	309 ppm	Rat	

**Irritation and corrosivity**

Causes serious eye irritation.

**Sensitising effects**

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

**STOT-single exposure**

May cause drowsiness or dizziness. (acetone; propan-2-one; propanone), (propan-2-ol; isopropyl alcohol; isopropanol)

**Severe effects after repeated or prolonged exposure**

Repeated exposure may cause skin dryness or cracking.

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**Aspiration hazard**

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

**SECTION 12: Ecological information**

**12.1. Toxicity**

There are no data available on the mixture itself.

**PU Cleaner**

Print date: 22.01.2015

Page 7 of 10

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h]   [d]	Species	Source
67-64-1	acetone; propan-2-one; propanone					
	Acute fish toxicity	LC50	5540 mg/l	96 h	Onchorhynchus mykiss	
	Acute crustacea toxicity	EC50	6100 mg/l	48 h	Daphnia magna	
115-10-6	dimethyl ether					
	Acute fish toxicity	LC50	> 4,1 mg/l	96 h	Poecilia reticulata (Guppy)	
	Acute algae toxicity	ErC50	154,9 mg/l	96 h		
	Acute crustacea toxicity	EC50	> 4,4 mg/l	48 h	Daphnia magna (Big water flea)	

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
67-64-1	acetone; propan-2-one; propanone	-0,24
115-10-6	dimethyl ether	0,1
75-28-5	isobutane	2,8
74-98-6	propane	2,36

**12.4. Mobility in soil**

If product enters soil, it will be mobile and may contaminate groundwater.

**12.5. Results of PBT and vPvB assessment**

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

**12.6. Other adverse effects**

There are no data available on the mixture itself.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Advice on disposal**

Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances  
Classified as hazardous waste.

**Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances  
Classified as hazardous waste.

**Contaminated packaging**

Dispose of waste according to applicable legislation.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number:** UN 1950



**PU Cleaner**

Print date: 22.01.2015 Page 8 of 10

**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1



Classification code: 5F  
 Limited quantity: 1 L  
 Transport category: 2  
 Tunnel restriction code: D

**Other applicable information (land transport)**

Transport as "limited quantity" according to chapter 3.4 ADR/RID.

**Inland waterways transport (ADN)**

**14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1



Classification code: 5F  
 Limited quantity: 1 L

**Marine transport (IMDG)**

**14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
 Hazard label: 2.1



Marine pollutant: -  
 Limited quantity: 1000 mL  
 EmS: F-D, S-U

**Air transport (ICAO)**

**14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS, flammable  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
 Hazard label: 2.1



**PU Cleaner**

Print date: 22.01.2015

Page 9 of 10

Limited quantity Passenger: 30 kg G

**Other applicable information (air transport)**

E0  
Passenger-LQ: Y203

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

see chapter 6 - 8

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

not relevant

**SECTION 15: Regulatory information**

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

**EU regulatory information**

2004/42/EC (VOC): 100 %

**National regulatory information**

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

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

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

**Changes**

This data sheet contains changes from the previous version in section(s): 3,4,7,8,9,10,11,12,13,14,15.

**Relevant R-phrases (Number and full text)**

- 11 Highly flammable.
- 12 Extremely flammable.
- 36 Irritating to eyes.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

**Relevant H- and EUH-phrases (Number and full text)**

- H220 Extremely flammable gas.
- H222 Extremely flammable aerosol.
- H225 Highly flammable liquid and vapour.
- H229 Pressurised container: May burst if heated.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- EUH066 Repeated exposure may cause skin dryness or cracking.

**Further Information**

Data sources: Data arise from reference works and literature.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

**PU Cleaner**

Print date: 22.01.2015

Page 10 of 10

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