



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and  
Regulation (EC) No. 1272/2008

Revision Date 21-Feb-2025

Version 1

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

### 1.1. Product identifier

**Product Code** 80072  
**Product Name** 117EA UNDERCOATING 16OZ AE

### Other means of identification

**Unique Formula Identifier (UFI)** 4CXH-W09M-Q00X-FNTF  
Mixture. Contains TOLUENE; BUTANE; NAPHTHA (PETROLEUM), HEAVY STRAIGHT-RUN

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

**Recommended Use** Undercoating - Aerosol  
**Uses advised against** No information available

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

<b>Manufacturer</b>	<b>Only Representative (OR)</b>
ITW Permatex, Inc. 6875 Parkland Blvd. Solon, Ohio 44139 USA Telephone: 1-87-Permatex (866) 732-9502	ITW Permatex, Inc. Bay 150 Shannon Industrial Estate Co. Clare Ireland V14 DF82 353(61)771500 353(61)471285 customerservice.shannon@itwpp.com

### For further information, please contact

**Contact Point** ITW Permatex  
6875 Parkland Blvd.  
Solon, Ohio 44139 USA  
Telephone: 1-87-Permatex  
(866) 732-9502

**E-mail address:** mail@permatex.com

**Non-Emergency Telephone Number** 866-732-9502

### 1.4. Emergency telephone number

24-hour emergency phone number EU Member States information as follows:

<b>24-hour emergency phone number - §45 - (EC)1272/2008</b>	
<b>Europe</b>	<b>112</b>
<b>Austria</b>	<b>01 406 43 43</b>

Belgium	070 245 245
Bulgaria	+359 2 9154 233
Croatia	+3851 2348 342
Cyprus	1401
Czech Republic	+420 224 919 293/ +420 224 915 402
Denmark	+ 45 8212 1212
Estonia	16662/ (+372) 7943 794
Finland	0800 147 111/ 09 471 977
France	+33 (0)1 45 42 59 59
Germany	+49 228 192 40
Greece	(003) 2107793777
Hungary	+36 80 201 199
Iceland	543 2222
Ireland	01 809 2166
Italy	0382-24444
Latvia	+371 67042473
Liechtenstein	01 406 43 43
Lithuania	+370 (85) 2362052
Luxembourg	(+352) 8002 5500
Malta	112
Netherlands	+31 (0)88 755 8000
Norway	22 59 13 00
Poland	112
Portugal	+351 800 250 250
Romania	+40213183606
Slovakia	+421 2 5477 4166
Slovenia	112
Spain	+34 91 562 04 20
Sweden	112
Switzerland	145
United Kingdom	111

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Aerosols	Category 1 - (H222, H229)
Skin irritation	Category 2 - (H315)
Carcinogenicity	Category 1A - (H350)
Reproductive toxicity	Category 2 - (H361d)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Aspiration hazard	Category 1 - (H304)

### 2.2. Label elements

Contains TOLUENE; BUTANE; NAPHTHA (PETROLEUM), HEAVY STRAIGHT-RUN



Signal word

Danger

**Hazard statements**

H222 - Extremely flammable aerosol. H229 - Pressurized container: May burst if heated.  
H304 - May be fatal if swallowed and enters airways.  
H315 - Causes skin irritation.  
H350 - May cause cancer.  
H361d - Suspected of damaging the unborn child.  
H373 - May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statements - EU (§28, 1272/2008)**

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
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.  
P260 - Do not breathe dust, fume, gas, mist, vapors and spray.  
P264 - Wash skin thoroughly after handling.  
P280 - Wear protective gloves, protective clothing, eye protection and face protection.  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P331 - Do NOT induce vomiting.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P308 + P313 - IF exposed or concerned: Get medical advice/attention.  
P314 - Get medical advice/attention if you feel unwell.  
P332 + P313 - If skin irritation occurs: Get medical advice/attention.  
P362 + P364 - Take off contaminated clothing and wash it before reuse.  
P405 - Store locked up.  
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
P501 - Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable.

99 % of the mixture consists of ingredient(s) of unknown acute toxicity.  
86 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.  
86 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.  
82 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).  
99 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).  
86 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

**Unknown aquatic toxicity**

Contains 64.5 % of components with unknown hazards to the aquatic environment.

**Additional information**

This product requires tactile warnings if supplied to the general public.

**2.3. Other hazards**

<b>Other hazards</b>	No information available.
<b>PBT &amp; vPvB</b>	The components in this formulation do not meet the criteria for classification as PBT or vPvB.
<b>Endocrine Disruptor Information</b>	This product does not contain any known or suspected endocrine disruptors.

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Not applicable

**3.2. Mixtures**

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
TOLUENE 108-88-3	7-13%	No data available	203-625-9 (601-021-00-3)	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Repr. 2 (H361d) STOT RE 2 (H373)	-	-	-	-
PROPANE 74-98-6	7-13%	No data available	200-827-9 (601-003-00-5)	Flam. Gas 1 (H220) Press. Gas	-	-	-	U
BUTANE 106-97-8	5-10%	No data available	203-448-7 (601-004-00-0) (601-004-01-8)	Carc. 1A (H350) Muta. 1B (H340) Flam. Gas 1 (H220) Press. Gas	-	-	-	C,U C,S,U
NAPHTHA (PETROLEUM), HEAVY STRAIGHT-RUN 64741-41-9	3-7%	No data available	265-041-0 (649-264-00-4)	Asp. Tox. 1 (H304) Muta. 1B (H340) Carc. 1B (H350)	-	-	-	P
ACETONE 67-64-1	1-5%	No data available	200-662-2 (606-001-00-8)	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) (EUH066)	-	-	-	-
TITANIUM DIOXIDE 13463-67-7	0.1-1%	No data available	236-675-5 (022-006-00-2)	Carc. 2 (H351i)	-	-	-	V,W,10
CRYSTALLINE SILICA 14808-60-7	0.1-1%	No data available	238-878-4	No data available	-	-	-	-

Note A - Without prejudice to Article 17(2) of Regulation (EC) No 1272/2008, the name of the substance must appear on the label in the form of one of the designations given in Part 3 of Annex VI to that Regulation. In that Part, use is sometimes made of a general description such as "... compounds" or "... salts". In this case, the supplier who places such a substance on the market is required to state on the label the correct name, due account being taken of Section 1.1.1.4 of Annex VI to Regulation (EC) No 1272/2008.

Note C - Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note P - The harmonized classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0.1 % w/w benzene (Eines No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

Note R - The harmonized classification as a carcinogen applies except in the case of fibers with a Length Weighted Geometric Mean Diameter (LWGMD) minus two geometric standard errors greater than 6 µm, as measured in accordance with Test method A.22 in the Annex to Commission Regulation (EC) No 440/2008.

Note S - This substance may not require a label according to Article 17 of Regulation (EC) No 1272/2008 (see section 1.3 of Annex I to that Regulation).

Note U - When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned: Press. Gas (Comp.), Press. Gas (Liq.), Press. Gas (Ref. Liq.), Press. Gas (Diss.). Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

Note V - If the substance is to be placed on the market as fibers (with diameter < 3 µm, length > 5 µm and aspect ratio ≥ 3:1) or particles of the substance fulfilling the WHO fiber criteria or as particles with modified surface chemistry, their hazardous properties must be evaluated in accordance with Title II of this Regulation, to assess whether a higher category (Carc. 1B or 1A) and/or additional routes of exposure (oral or dermal) should be applied.

Note W - It has been observed that the carcinogenic hazard of this substance arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung. This note aims to describe the particular toxicity of the substance; it does not constitute a criterion for classification according to this Regulation.

Note 10 - The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

**Full text of H- and EUH-phrases: see section 16****Acute Toxicity Estimate**

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
TOLUENE 108-88-3	2600	12000	12.5	No data available	No data available
PROPANE 74-98-6	No data available	No data available	No data available	No data available	200200
BUTANE 106-97-8	No data available	No data available	No data available	No data available	276808.3276
ACETONE 67-64-1	5800	15715.7	100.2	No data available	No data available
TITANIUM DIOXIDE 13463-67-7	2000	No data available	5.0951	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59).

**Section 4: First aid measures****4.1. Description of first aid measures**

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention. Immediate medical attention is required.
<b>Inhalation</b>	Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

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

<b>Symptoms</b>	Difficulty in breathing. Coughing and/ or wheezing. Dizziness.
<b>Effects of Exposure</b>	May cause cancer. May cause adverse reproductive effects - such as birth defect, miscarriages, or infertility. May cause damage to organs through prolonged or repeated exposure.

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

<b>Note to physicians</b>	Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances.
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### **Section 5: Firefighting measures**

#### **5.1. Extinguishing media**

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray.
<b>Unsuitable extinguishing media</b>	DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

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

<b>Specific hazards arising from the chemical</b>	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated.
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#### **5.3. Advice for firefighters**

<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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### **Section 6: Accidental release measures**

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

<b>Personal precautions</b>	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Avoid breathing dust/fume/gas/mist/vapors/spray.
<b>Other information</b>	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

#### **6.2. Environmental precautions**

<b>Environmental precautions</b>	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
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#### **6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Flood with water to complete polymerization and scrape off floor.
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<b>Methods for cleaning up</b>	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.
<b>6.4. Reference to other sections</b>	
<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Advice on safe handling</b>	Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture. Avoid breathing vapors or mists. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Take off contaminated clothing and wash before reuse.
<b>General hygiene considerations</b>	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

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

<b>Storage Conditions</b>	Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Store locked up. Keep out of the reach of children. Store away from other materials.
<b>Storage class (TRGS 510)</b>	Storage class 2B.

### 7.3. Specific end use(s)

<b>Risk Management Methods (RMM)</b>	The information required is contained in this Safety Data Sheet.
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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
TOLUENE 108-88-3	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 190 mg/m <sup>3</sup> STEL 100 ppm STEL 380 mg/m <sup>3</sup>	TWA: 20 ppm TWA: 77 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 192.0 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384.0 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup>

	Sk*	Sk*	Sk*	Sk*	Sk*
PROPANE 74-98-6	-	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup> STEL 2000 ppm STEL 3600 mg/m <sup>3</sup>	TWA: 1000 ppm	TWA: 1800.0 mg/m <sup>3</sup>	-
BUTANE 106-97-8	-	TWA: 800 ppm TWA: 1900 mg/m <sup>3</sup> STEL 1600 ppm STEL 3800 mg/m <sup>3</sup>	TWA: 1000 ppm STEL: 980 ppm STEL: 2370 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup>	TWA: 600 ppm TWA: 1450 mg/m <sup>3</sup> TWA: 10 ppm TWA: 22 mg/m <sup>3</sup> STEL: 750 ppm STEL: 1810 mg/m <sup>3</sup>
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup> STEL 2000 ppm STEL 4800 mg/m <sup>3</sup>	TWA: 246 ppm TWA: 594 mg/m <sup>3</sup> STEL: 492 ppm STEL: 1187 mg/m <sup>3</sup>	TWA: 600 mg/m <sup>3</sup> STEL: 1400 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>
TITANIUM DIOXIDE 13463-67-7	-	TWA: 5 mg/m <sup>3</sup> STEL 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10.0 mg/m <sup>3</sup> TWA: 1.0 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup>
CRYSTALLINE SILICA 14808-60-7	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
TOLUENE 108-88-3	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*	TWA: 200 mg/m <sup>3</sup> Sk* Ceiling: 500 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 94 mg/m <sup>3</sup> STEL: 384 mg/m <sup>3</sup> STEL: 100 ppm Sk*	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*	TWA: 25 ppm TWA: 81 mg/m <sup>3</sup> STEL: 100 ppm STEL: 380 mg/m <sup>3</sup> Sk*
PROPANE 74-98-6	-	-	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup> STEL: 2000 ppm STEL: 3600 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>	TWA: 800 ppm TWA: 1500 mg/m <sup>3</sup> STEL: 1100 ppm STEL: 2000 mg/m <sup>3</sup>
BUTANE 106-97-8	-	-	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 2400 mg/m <sup>3</sup>	TWA: 800 ppm TWA: 1500 mg/m <sup>3</sup>	TWA: 800 ppm TWA: 1900 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 2400 mg/m <sup>3</sup>
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> Sk*	TWA: 800 mg/m <sup>3</sup> Ceiling: 1500 mg/m <sup>3</sup>	TWA: 250 ppm TWA: 600 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1200 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup> STEL: 630 ppm STEL: 1500 mg/m <sup>3</sup>
TITANIUM DIOXIDE 13463-67-7	-	-	TWA: 6 mg/m <sup>3</sup> STEL: 12 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	-
CRYSTALLINE SILICA 14808-60-7	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.3 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> STEL: 0.6 mg/m <sup>3</sup> STEL: 0.2 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
TOLUENE 108-88-3	TWA: 20 ppm TWA: 76.8 mg/m <sup>3</sup> TWA: 1000 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup> Sk*	TWA: 50 ppm TWA: 190 mg/m <sup>3</sup> Sk*	TWA: 50 ppm TWA: 190 mg/m <sup>3</sup> Peak: 100 ppm Peak: 380 mg/m <sup>3</sup> Sk*	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*	TWA: 190 mg/m <sup>3</sup> TWA: 50 ppm STEL: 384 mg/m <sup>3</sup> STEL: 100 ppm Sk*
PROPANE 74-98-6	-	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup> Peak: 4000 ppm Peak: 7200 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>	-
BUTANE 106-97-8	TWA: 800 ppm TWA: 1900 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 2400 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 2400 mg/m <sup>3</sup> Peak: 4000 ppm Peak: 9600 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 2350 mg/m <sup>3</sup>	TWA: 2350 mg/m <sup>3</sup> STEL: 9400 mg/m <sup>3</sup>



ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 2420 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup> Peak: 1000 ppm Peak: 2400 mg/m <sup>3</sup>	TWA: 1780 mg/m <sup>3</sup> STEL: 3560 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 1.25 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	TWA: 0.3 mg/m <sup>3</sup> Peak: 2.4 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	-
CRYSTALLINE SILICA 14808-60-7	TWA: 0.1 mg/m <sup>3</sup>	-	-	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
TOLUENE 108-88-3	TWA: 192 mg/m <sup>3</sup> TWA: 50 ppm STEL: 384 mg/m <sup>3</sup> STEL: 100 ppm Sk*	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> Sk*	TWA: 20 ppm TWA: 75.4 mg/m <sup>3</sup>	TWA: 14 ppm TWA: 50 mg/m <sup>3</sup> STEL: 40 ppm STEL: 150 mg/m <sup>3</sup> Sk*	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*
PROPANE 74-98-6	STEL: 3000 ppm Simple asphyxiant	-	: Simple asphyxiant	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup> TWA: 100 mg/m <sup>3</sup> STEL: 300 mg/m <sup>3</sup>	-
BUTANE 106-97-8	TWA: 1000 ppm STEL: 3000 ppm	-	STEL: 1000 ppm STEL: 2377 mg/m <sup>3</sup>	TWA: 300 mg/m <sup>3</sup> TWA: 100 mg/m <sup>3</sup> STEL: 300 mg/m <sup>3</sup>	-
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 1500 ppm STEL: 3630 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 250 ppm TWA: 594 mg/m <sup>3</sup> STEL: 500 ppm STEL: 1187 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 2420 mg/m <sup>3</sup>
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> STEL: 12 mg/m <sup>3</sup>	-	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
CRYSTALLINE SILICA 14808-60-7	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.025 mg/m <sup>3</sup>	-	TWA: 0.1 ppm
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
TOLUENE 108-88-3	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*	TWA: 39 ppm TWA: 150 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 94 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 141 mg/m <sup>3</sup> Sk*	TWA: 100 mg/m <sup>3</sup> STEL: 200 mg/m <sup>3</sup> Sk*
PROPANE 74-98-6	-	-	-	TWA: 500 ppm TWA: 900 mg/m <sup>3</sup> TWA: 40 ppm TWA: 275 mg/m <sup>3</sup> STEL: 625 ppm STEL: 1125 mg/m <sup>3</sup> STEL: 60 ppm STEL: 343.75 mg/m <sup>3</sup>	TWA: 1800 mg/m <sup>3</sup>
BUTANE 106-97-8	-	-	-	TWA: 250 ppm TWA: 600 mg/m <sup>3</sup> TWA: 40 ppm TWA: 275 mg/m <sup>3</sup> STEL: 312.5 ppm STEL: 750 mg/m <sup>3</sup> STEL: 60 ppm STEL: 343.75 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup> STEL: 3000 mg/m <sup>3</sup>
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 1 ppm STEL: 2420 mg/m <sup>3</sup>	TWA: 125 ppm TWA: 295 mg/m <sup>3</sup> STEL: 156.25 ppm STEL: 368.75 mg/m <sup>3</sup>	TWA: 600 mg/m <sup>3</sup> STEL: 1800 mg/m <sup>3</sup>
TITANIUM DIOXIDE 13463-67-7	-	-	-	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup>

CRYSTALLINE SILICA 14808-60-7	-	-	TWA: 0.075 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup> TWA: 0.3 mg/m <sup>3</sup> STEL: 0.9 mg/m <sup>3</sup> STEL: 0.15 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
TOLUENE 108-88-3	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> Sk* Ceiling: 384 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*	TWA: 50 ppm TWA: 192 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*
PROPANE 74-98-6	TWA: 1000 ppm	TWA: 778 ppm TWA: 1400 mg/m <sup>3</sup> TWA: 700 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 1800 mg/m <sup>3</sup> STEL: 1000 mg/m <sup>3</sup>	-	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup> STEL: 4000 ppm STEL: 7200 mg/m <sup>3</sup>	TWA: 1000 ppm
BUTANE 106-97-8	TWA: 1000 ppm STEL: 1000 ppm	TWA: 700 mg/m <sup>3</sup> STEL: 1000 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 2400 mg/m <sup>3</sup> STEL: 5000 ppm STEL: 12000 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 2400 mg/m <sup>3</sup> STEL: 4000 ppm STEL: 9600 mg/m <sup>3</sup>	TWA: 1000 ppm
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 750 ppm	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 2420 mg/m <sup>3</sup> STEL: 1000 ppm	TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup>
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 15 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	-	TWA: 10 mg/m <sup>3</sup>
CRYSTALLINE SILICA 14808-60-7	TWA: 0.025 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> STEL: 0.5 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>
Chemical name	Sweden		Switzerland		United Kingdom
TOLUENE 108-88-3	NGV: 50 ppm NGV: 192 mg/m <sup>3</sup> Bindande KGV: 100 ppm Bindande KGV: 384 mg/m <sup>3</sup> Sk*		TWA: 50 ppm TWA: 190 mg/m <sup>3</sup> STEL: 200 ppm STEL: 760 mg/m <sup>3</sup> Sk*		TWA: 50 ppm TWA: 191 mg/m <sup>3</sup> STEL: 100 ppm STEL: 384 mg/m <sup>3</sup> Sk*
PROPANE 74-98-6	NGV: 350 mg/m <sup>3</sup>		TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup> STEL: 4000 ppm STEL: 7200 mg/m <sup>3</sup>		-
BUTANE 106-97-8	NGV: 350 mg/m <sup>3</sup>		TWA: 800 ppm TWA: 1900 mg/m <sup>3</sup> STEL: 3200 ppm STEL: 7600 mg/m <sup>3</sup>		TWA: 600 ppm TWA: 1450 mg/m <sup>3</sup> STEL: 750 ppm STEL: 1810 mg/m <sup>3</sup>
ACETONE 67-64-1	NGV: 250 ppm NGV: 600 mg/m <sup>3</sup> Vägledande KGV: 500 ppm Vägledande KGV: 1200 mg/m <sup>3</sup>		TWA: 500 ppm TWA: 1200 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 2400 mg/m <sup>3</sup>		TWA: 500 ppm TWA: 1210 mg/m <sup>3</sup> STEL: 1500 ppm STEL: 3620 mg/m <sup>3</sup>
TITANIUM DIOXIDE 13463-67-7	NGV: 5 mg/m <sup>3</sup>		TWA: 3 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>		TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> STEL: 12 mg/m <sup>3</sup>
CRYSTALLINE SILICA 14808-60-7	NGV: 0.1 mg/m <sup>3</sup>		TWA: 0.15 mg/m <sup>3</sup>		TWA: 0.1 mg/m <sup>3</sup> STEL: 0.3 mg/m <sup>3</sup>

**Biological occupational exposure limits**

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
TOLUENE	-	10 g/dL Hemoglobin	1.6 mmol/mmol	1.0 mg/L - blood	1.6 µmol/mmol

108-88-3		- blood - by the first screening and once yearly 12 g/dL Hemoglobin - blood - by the first screening and once yearly 3.2 million/ $\mu$ L Erythrocytes - blood - by the first screening and once yearly 3.8 million/ $\mu$ L Erythrocytes - blood - by the first screening and once yearly 4000 Leukocytes/ $\mu$ L - blood - by the first screening and once yearly 13000 Leukocytes/ $\mu$ L - blood - by the first screening and once yearly 130000 Thrombocytes/ $\mu$ L - blood - by the first screening and once yearly 150000 Thrombocytes/ $\mu$ L - blood - by the first screening and once yearly 0.8 mg/L - urine (o-Cresol) - after end of work day, at the end of a work week/end of the shift (Note 1)	Creatinine - urine (Hippuric acid) - at the end of exposure or end of work shift	(Toluene) - at the end of the work shift 20 ppm - final exhaled air (Toluene) - during exposure 2.50 g/g Creatinine - urine (Hippuric acid) - at the end of the work shift 1.0 mg/g Creatinine - urine (o-Cresol) - at the end of the work shift	Creatinine (urine - o-Cresol end of shift) 1000 $\mu$ mol/mmol Creatinine (urine - Hippuric acid end of shift) 1.5 mg/g Creatinine (urine - o-Cresol end of shift) 1600 mg/g Creatinine (urine - Hippuric acid end of shift)
ACETONE 67-64-1	-	-	80 mg/L - urine (Acetone) - at the end of exposure or end of work shift	20.0 mg/L - blood (Acetone) - at the end of the work shift 20.0 mg/g Creatinine - urine (Acetone) - at the end of the work shift	-
CRYSTALLINE SILICA 14808-60-7	-	(Note 1)	-	-	-
Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
TOLUENE 108-88-3	-	500 nmol/L (blood - Toluene in the morning after a working day)	20 $\mu$ g/L - blood (Toluene) - end of workweek - urine (Hippuric acid) - end of shift	600 $\mu$ g/L (whole blood - Toluene immediately after exposure) 75 $\mu$ g/L (urine - Toluene end of shift) 1.5 mg/L (urine -	600 $\mu$ g/L (whole blood - Toluene immediately after exposure) 75 $\mu$ g/L (urine - Toluene end of shift) 1.5 mg/L (urine -

				o-Cresol (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 1.5 mg/L (urine - o-Cresol (after hydrolysis) end of shift) 600 µg/L - BAT (immediately after exposure) blood 75 µg/L - BAT (end of exposure or end of shift) urine 1.5 mg/L - BAT (end of exposure or end of shift) urine	o-Cresol (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 1.5 mg/L (urine - o-Cresol (after hydrolysis) end of shift)
ACETONE 67-64-1	-	-	- urine (Acetone) - end of shift	50 mg/L (urine - Acetone end of shift) 50 mg/L - BAT (end of exposure or end of shift) urine 2.5 mg/L - BAR (end of exposure or end of shift) urine	50 mg/L (urine - Acetone end of shift)
Chemical name	Hungary	Ireland	Italy MDLPS	Italy AIDII	
TOLUENE 108-88-3	1 mg/g Creatinine (urine - o-Cresol end of shift) 1 µmol/mmol Creatinine (urine - o-Cresol end of shift)	0.02 mg/L (blood - Toluene prior to last shift of workweek) 0.03 mg/L (urine - Toluene end of shift) 0.3 mg/g Creatinine (urine - o-Cresol end of shift)	-	0.3 mg/g Creatinine - urine (o-Cresol (with hydrolysis)) - end of shift 0.03 mg/L - urine (Toluene) - end of shift 0.02 mg/L - blood (Toluene) - prior to last shift of workweek	
ACETONE 67-64-1	-	50 mg/L (urine - Acetone end of shift)	-	25 mg/L - urine (Acetone) - end of shift	
Chemical name	Latvia	Luxembourg	Romania	Slovakia	
TOLUENE 108-88-3	600 µg/L - blood (Toluene) - at the end of exposure 75 µg/L - urine (Toluene) - end of shift 1.5 mg/L - urine (o-Cresol) - at the end of exposure or shift	-	2 g/L - urine (Hippuric acid) - end of shift 3 mg/L - urine (o-Cresol) - end of shift	600 µg/L (blood - Toluene end of exposure or work shift) 1.5 mg/L (urine - o-Cresol after all work shifts) 1.5 mg/L (urine - o-Cresol end of exposure or work shift) 2401 mg/g creatinine ( - Hippuric acid end of exposure or work shift)	
ACETONE 67-64-1	80 mg/L - urine (Acetone) - at the end of exposure or shift	-	50 mg/L - urine (Acetone) - end of shift	80 mg/L (urine - Acetone end of exposure or work shift)	
Chemical name	Slovenia	Spain	Switzerland	United Kingdom	
TOLUENE 108-88-3	600 µg/L - blood (Toluene) - immediately after exposure 1.5 mg/L - urine (o-Cresol (after	0.6 mg/L (urine - o-Cresol end of shift) 0.05 mg/L (blood - Toluene start of last shift of workweek)	600 µg/L (whole blood - Toluene end of shift) 6.48 µmol/L (whole blood - Toluene end of shift)	-	

	hydrolysis)) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays 75 µg/L - urine (Toluene) - at the end of the work shift	0.08 mg/L (urine - Toluene end of shift)	2 g/g creatinine (urine - Hippuric acid end of shift, and after several shifts (for long-term exposures)) 1.26 mmol/mmol creatinine (urine - Hippuric acid end of shift, and after several shifts (for long-term exposures)) 0.5 mg/L (urine - o-Cresol end of shift, and after several shifts (for long-term exposures)) 4.62 µmol/L (urine - o-Cresol end of shift, and after several shifts (for long-term exposures)) 75 µg/L (urine - Toluol end of shift)	
ACETONE 67-64-1	80.0 mg/L - urine (Acetone) - at the end of the work shift	50 mg/L (urine - Acetone end of shift)	50 mg/L (urine - Acetone end of shift) 0.86 mmol/L (urine - Acetone end of shift)	-

**Note 1:** Details about BEL values can be found in Annex 2 of the Austrian Ordinance on Health Monitoring in the Workplace.

#### Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
TOLUENE 108-88-3	-	384 mg/kg bw/day [4] [6]	192 mg/m <sup>3</sup> [4] [6] 384 mg/m <sup>3</sup> [4] [7] 192 mg/m <sup>3</sup> [5] [6] 384 mg/m <sup>3</sup> [5] [7]
ACETONE 67-64-1	-	186 mg/kg bw/day [4] [6]	1210 mg/m <sup>3</sup> [4] [6] 2420 mg/m <sup>3</sup> [5] [7]

#### Notes

- [4] Systemic health effects.  
[5] Local health effects.  
[6] Long term.  
[7] Short term.

#### Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
TOLUENE 108-88-3	8.13 mg/kg bw/day [4] [6]	-	56.5 mg/m <sup>3</sup> [4] [6] 226 mg/m <sup>3</sup> [4] [7] 56.5 mg/m <sup>3</sup> [5] [6] 226 mg/m <sup>3</sup> [5] [7]
ACETONE 67-64-1	62 mg/kg bw/day [4] [6]	-	200 mg/m <sup>3</sup> [4] [6]

#### Notes

- [4] Systemic health effects.

[5]	Local health effects.
[6]	Long term.
[7]	Short term.

**Predicted No Effect Concentration (PNEC)**

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
TOLUENE 108-88-3	0.68 mg/L	0.68 mg/L	0.68 mg/L	-	-
ACETONE 67-64-1	10.6 mg/L	21 mg/L	1.06 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
TOLUENE 108-88-3	16.39 mg/kg sediment dw	16.39 mg/kg sediment dw	13.61 mg/L	2.89 mg/kg soil dw	-
ACETONE 67-64-1	30.4 mg/kg sediment dw	3.04 mg/kg sediment dw	100 mg/L	29.5 mg/kg soil dw	-

**8.2. Exposure controls**

**Engineering controls** No information available.

**Personal protective equipment**

**Eye/face protection** Tight sealing safety goggles. Safety glasses with side shields are recommended for medical or industrial exposures.

**Hand protection** Impervious gloves. Wear suitable gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

**Respiratory protection** Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Thermal hazards** No information available.

**Environmental exposure controls** No information available.

**Section 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Aerosol
<b>Color</b>	Black
<b>Odor</b>	Solvent
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	Boiling point / boiling range 57 °C
Flammability Limit in Air		Flammability (solid, gas) Flammable Aerosol Upper flammability limit: 12.8% Lower flammability limit: 1.1%
Autoignition temperature	480.0000 °C	Flash point -103.8889 °C
Decomposition temperature	No data available	pH No data available
pH (as aqueous solution)	No data available	Kinematic viscosity < 14 mm <sup>2</sup> /s
Dynamic viscosity	No data available	Water solubility No data available No information available
Partition coefficient	No Data Available	Solubility(ies) No Data Available
		Vapor pressure 50-70 psig @20C estimated
		Relative density 0.910
		Bulk density No data available
		Density No data available
		Vapor density No data available
		Particle characteristics
		Particle Size No information available
		Particle Size No information available
		Distribution

## 9.2. Other information

9.2.1. Information with regard to physical hazard classes  
Not applicable

9.2.2. Other safety characteristics  
No information available

## Section 10: Stability and reactivity

### 10.1. Reactivity

Reactivity No information available.

### 10.2. Chemical stability

Stability Stable under normal conditions.

#### Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

### 10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks.

### 10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidizing agents.

**10.6. Hazardous decomposition products**

**Hazardous Decomposition Products** Carbon oxides.

**Section 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure**

<b>Inhalation</b>	Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. May cause irritation.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking. Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Symptoms related to the physical, chemical and toxicological characteristics**

<b>Symptoms</b>	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes.
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**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Acute toxicity</b>	Based on available data, the classification criteria are not met.
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**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral) 3,208.50 mg/kg  
 ATEmix (dermal) 13,666.30 mg/kg  
 ATEmix (inhalation-gas) 239,081.10 ppm  
 ATEmix (inhalation-vapor) 99,999.00 mg/l  
 ATEmix (inhalation-dust/mist) 16.90 mg/l

86 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.  
 86 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.  
 82 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).  
 99 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).  
 86 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
TOLUENE	= 2600 mg/kg ( Rat )	= 12000 mg/kg ( Rabbit )	= 12.5 mg/L ( Rat ) 4 h
PROPANE	-	-	> 800000 ppm ( Rat ) 15 min
BUTANE	-	-	= 658 g/m <sup>3</sup> ( Rat ) 4 h
ACETONE	= 5800 mg/kg ( Rat )	> 15700 mg/kg ( Rabbit )	= 50100 mg/m <sup>3</sup> ( Rat ) 8 h
TITANIUM DIOXIDE	> 2000 mg/kg ( Rat )	-	> 5.09 mg/L ( Rat ) 4 h



**Skin corrosion/irritation** Classification based on data available for ingredients. Causes skin irritation.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Respiratory or skin sensitization** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name	European Union
BUTANE	Muta. 1B
NAPHTHA (PETROLEUM), HEAVY STRAIGHT-RUN	Muta. 1B

**Carcinogenicity** Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
BUTANE	Carc. 1A
NAPHTHA (PETROLEUM), HEAVY STRAIGHT-RUN	Carc. 1B
TITANIUM DIOXIDE	Carc. 2

**Reproductive toxicity** Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
TOLUENE	Repr. 2

**STOT - single exposure** Based on available data, the classification criteria are not met.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard** May be fatal if swallowed and enters airways.

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** Based on available data, the classification criteria are not met.

### 11.2.2. Other information

**Other adverse effects** No information available.

## **Section 12: Ecological information**

**12.1. Toxicity****Ecotoxicity****Unknown aquatic toxicity**

Contains 64.5 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
TOLUENE	EC50: >433mg/L (96h, Pseudokirchneriella subcapitata) EC50: =12.5mg/L (72h, Pseudokirchneriella subcapitata)	LC50: 15.22 - 19.05mg/L (96h, Pimephales promelas) LC50: =12.6mg/L (96h, Pimephales promelas) LC50: 5.89 - 7.81mg/L (96h, Oncorhynchus mykiss) LC50: 14.1 - 17.16mg/L (96h, Oncorhynchus mykiss) LC50: =5.8mg/L (96h, Oncorhynchus mykiss) LC50: 11.0 - 15.0mg/L (96h, Lepomis macrochirus) LC50: =54mg/L (96h, Oryzias latipes) LC50: =28.2mg/L (96h, Poecilia reticulata) LC50: 50.87 - 70.34mg/L (96h, Poecilia reticulata)	-	EC50: 5.46 - 9.83mg/L (48h, Daphnia magna) EC50: =11.5mg/L (48h, Daphnia magna)
NAPHTHA (PETROLEUM), HEAVY STRAIGHT-RUN	EC50: =4700mg/L (72h, Pseudokirchneriella subcapitata)	-	-	-
ACETONE	-	LC50: 4.74 - 6.33mg/L (96h, Oncorhynchus mykiss) LC50: 6210 - 8120mg/L (96h, Pimephales promelas) LC50: =8300mg/L (96h, Lepomis macrochirus)	-	EC50: 10294 - 17704mg/L (48h, Daphnia magna) EC50: 12600 - 12700mg/L (48h, Daphnia magna)

**12.2. Persistence and degradability****Persistence and degradability**

No information available.

**12.3. Bioaccumulative potential****Bioaccumulation**

Chemical name	Partition coefficient
TOLUENE	3.93
PROPANE	1.09
BUTANE	2.31
ACETONE	-0.24

**12.4. Mobility in soil**

**Mobility in soil** No information available.

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

**PBT and vPvB assessment** Based on available data, the classification criteria are not met.

Chemical name	PBT and vPvB assessment
TOLUENE	The substance is not PBT / vPvB
PROPANE	The substance is not PBT / vPvB
BUTANE	The substance is not PBT / vPvB
NAPHTHA (PETROLEUM), HEAVY STRAIGHT-RUN	The substance is not PBT / vPvB
ACETONE	The substance is not PBT / vPvB
TITANIUM DIOXIDE	The substance is not PBT / vPvB

**12.6. Endocrine disrupting properties**

**Endocrine disrupting properties** Based on available data, the classification criteria are not met.

**12.7. Other adverse effects**

**Other adverse effects** No information available.

**PMT or vPvM properties** Based on available data, the classification criteria are not met.

**Section 13: Disposal considerations****13.1. Waste treatment methods**

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

**Section 14: Transport information****IATA**

<b>14.1 UN number or ID number</b>	ID 8000
<b>14.2 UN proper shipping name</b>	Consumer Commodity
<b>14.3 Transport hazard class(es)</b>	9
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special precautions for user</b>	
<b>Special Provisions</b>	A112
<b>ERG Code</b>	9L

**IMDG**

<b>14.1 UN number or ID number</b>	1950
<b>14.2 UN proper shipping name</b>	Aerosols, Limited Quantity (LQ)
<b>14.3 Transport hazard class(es)</b>	2.1
<b>14.4 Packing group</b>	Not applicable
<b>14.5 Environmental hazards</b>	Not applicable

**14.6 Special precautions for user****Special Provisions**

None

**14.7 Maritime transport in bulk according to IMO instruments**

No information available

**RID****14.1 UN number or ID number**

1950

**14.2 UN proper shipping name**

Aerosols, Limited Quantity (LQ)

**14.3 Transport hazard class(es)**

2.1

**14.4 Packing group**

Not applicable

**14.5 Environmental hazards**

Not applicable

**14.6 Special precautions for user****Special Provisions**

None

**ADR****14.1 UN number or ID number**

1950

**14.2 UN proper shipping name**

Aerosols, Limited Quantity (LQ)

**14.3 Transport hazard class(es)**

2.1

**14.4 Packing group**

Not applicable

**14.5 Environmental hazards**

Not applicable

**14.6 Special precautions for user****Special Provisions**

None

**Classification code**

5F

**ADN****14.1 UN number or ID number**

1950

**14.2 UN proper shipping name**

Aerosols, Limited Quantity (LQ)

**14.3 Transport hazard class(es)**

2.1

**14.4 Packing group**

Not applicable

**14.5 Environmental hazard**

Not applicable

**14.6 Special precautions for user****Special Provisions**

None

**Section 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****France****Occupational Illnesses (R-463-3, France)**

Chemical name	French RG number
TOLUENE - 108-88-3	RG 4bis, RG 84
ACETONE - 67-64-1	RG 84
CRYSTALLINE SILICA - 14808-60-7	RG 25

**Germany****Water hazard class (WGK)** strongly hazardous to water (WGK 3)**TA Luft (German Air Pollution Control Regulation)**

Chemical name	Number	Class
CRYSTALLINE SILICA	5.2.7.1.1	-

**Netherlands****Carcinogenic, mutagenic and reproductive toxic effects**

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
TOLUENE	-	-	Development Category 2
CRYSTALLINE SILICA	Present	-	-

**Switzerland**

Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018 Group I  
WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20 Class A

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorizations and/or restrictions on use:**

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
TOLUENE - 108-88-3	48 75	-
BUTANE - 106-97-8	28 29 75	-
NAPHTHA (PETROLEUM), HEAVY STRAIGHT-RUN - 64741-41-9	28 29 75	-
ACETONE - 67-64-1	75	-
TITANIUM DIOXIDE - 13463-67-7	75	-

**Persistent Organic Pollutants**

Not applicable

**Dangerous substance category per Seveso Directive (2012/18/EU)**

P3a - FLAMMABLE AEROSOLS

P3b - FLAMMABLE AEROSOLS

**Named dangerous substances per Seveso Directive (2012/18/EU)**

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
NAPHTHA (PETROLEUM), HEAVY STRAIGHT-RUN - 64741-41-9	-	25000

**Ozone-depleting substances (ODS) Regulation (EU) 2024/590**

Not applicable

**EU - Plant Protection Products (1107/2009/EC)**

Chemical name	EU - Plant Protection Products (1107/2009/EC)
CRYSTALLINE SILICA - 14808-60-7	Plant protection agent

**International Inventories**

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Not determined
ENCS	Not determined

IECSC	Not determined
KECI	Not determined
PICCS	Not determined
AICS	Not Listed
NZIoC	Complies
TCSI	Contact supplier for inventory compliance status

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing Chemicals Inventory  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals  
**TCSI** - Taiwan Chemical Substance Inventory

**15.2. Chemical safety assessment**

Chemical Safety Report                      No information available

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of any hazard and/or precautionary statements referred to under Sections 2-15**

H220 - Extremely flammable gas  
 H225 - Highly flammable liquid and vapor  
 H304 - May be fatal if swallowed and enters airways  
 H315 - Causes skin irritation  
 H319 - Causes serious eye irritation  
 H336 - May cause drowsiness or dizziness  
 H340 - May cause genetic defects  
 H350 - May cause cancer  
 H351i - Suspected of causing cancer if inhaled  
 H361d - Suspected of damaging the unborn child  
 H373 - May cause damage to organs through prolonged or repeated exposure

**Legend**

SVHC: Substances of Very High Concern for Authorization:  
 PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances  
 vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances  
 STOT: Specific Target Organ Toxicity  
 ATE: Acute Toxicity Estimate  
 LC50: 50% Lethal Concentration  
 LD50: 50% Lethal Dose

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitizers		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method

Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Chronic aquatic toxicity	Calculation method
Acute aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method
Flammable aerosol	On basis of test data

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
 European Chemicals Agency (ECHA) (ECHA\_API)  
 Environmental Protection Agency  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 National Institute of Technology and Evaluation (NITE)  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 U.S. National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

Revision Date 21-Feb-2025

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Disclaimer**

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**End of Safety Data Sheet**