



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 17-Oct-2024

Version 2

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

1.1. Product identifier

Product Code 80697
Product Name PX 101MA COPPER GASKET SEALANT 9 OZ .

Other means of identification

Unique Formula Identifier (UFI) A48J-K0YV-N00C-VK7T

Mixture. Contains ACETONE; NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE]; HEPTANE; ETHYL ACETATE; DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE]; METHYLCYCLOHEXANE

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

Recommended Use Sealant
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer	Only Representative (OR)
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, Inc.
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:

24-hour emergency phone number - §45 - (EC)1272/2008

Europe	112
Austria	01 406 43 43
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)
Acute toxicity - Inhalation (Vapors)	Category 4 - (H332)
Skin irritation	Category 2 - (H315)
Eye irritation	Category 2 - (H319)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Category 3 Target organ effects: Narcotic effects.	
Aspiration hazard	Category 1 - (H304)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

Contains ACETONE; NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE]; HEPTANE; ETHYL ACETATE; DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE]; METHYLCYCLOHEXANE

**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.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

H336 - May cause drowsiness or dizziness.

H410 - Very toxic to aquatic life with long lasting effects.

EUH066 - Repeated exposure may cause skin dryness or cracking.

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

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.

P273 - Avoid release to the environment.

P280 - Wear protective gloves and eye/face protection.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P391 - Collect spillage.

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Unknown acute toxicity

96.63 % of the mixture consists of ingredient(s) of unknown acute toxicity.

33.93 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

24.25 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

84.49 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

96.63 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

56.66 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Unknown aquatic toxicity

Contains 0.02 % 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**Other hazards**

No information available.

PBT & vPvB

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

Endocrine Disruptor Information

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
ACETONE 67-64-1	15-40%	No data available	200-662-2 (606-001-00-8)	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) (EUH066)	-	-	-	-
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE] 64742-49-0	10-30%	No data available	265-151-9 (649-328-00-1)	Asp. Tox. 1 (H304)	-	-	-	P
PROPANE 74-98-6	7-13%	No data available	200-827-9 (601-003-00-5)	Flam. Gas 1 (H220) Press. Gas	-	-	-	U
HEPTANE 142-82-5	5-10%	No data available	205-563-8 (601-008-00-2)	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-	C
BUTANE 106-97-8	1-5%	No data available	203-448-7 (601-004-00-0) (601-004-01-8)	Flam. Gas 1 (H220) Press. Gas	-	-	-	C,U C,S,U
ETHYL ACETATE 141-78-6	1-5%	No data available	205-500-4 (607-022-00-5)	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336) (EUH066)	-	-	-	-
COPPER 7440-50-8	1-5%	No data available	231-159-6 (029-024-00-X)	Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-	-
DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE] 68410-97-9	1-5%	No data available	270-093-2 (649-332-00-3)	Asp. Tox. 1 (H304)	-	-	-	P
METHYLCYCLOHEX ANE 108-87-2	0.5-1.5%	No data available	203-624-3 (601-018-00-7)	Flam. Liq. 2 (H225) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT SE 3 (H336) Aquatic Chronic 2 (H411)	-	-	-	-
ISOPROPYL ALCOHOL 67-63-0	0.1-1%	No data available	200-661-7 (603-117-00-0)	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319) STOT SE 3 (H336)	-	-	-	-
QUARTZ	<0.1%	No data	238-878-4	STOT RE 2 (H373)	-	-	-	-

14808-60-7		available						
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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 L - The harmonized classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ('Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method' Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

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 (Einecs 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).

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
ACETONE 67-64-1	5800	15700	100.2	No data available	No data available
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE] 64742-49-0	5000	3160	No data available	No data available	No data available
PROPANE 74-98-6	No data available	No data available	No data available	No data available	200000
HEPTANE 142-82-5	No data available	3000	29.29	No data available	No data available
BUTANE 106-97-8	No data available	No data available	No data available	No data available	276808.3276
ETHYL ACETATE 141-78-6	5620	18000	No data available	14.4131	No data available
DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE] 68410-97-9	5170	3000	No data available	No data available	No data available
METHYLCYCLOHEXANE	3200	86700	No data available	No data available	No data available

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
108-87-2					
ISOPROPYL ALCOHOL 67-63-0	1870	4059	No data available	30.1002	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

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	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.
Eye contact	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.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical attention.
Self-protection of the first aider	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. 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. Avoid breathing vapors or mists. See section 8 for more information.

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

Symptoms	Difficulty in breathing. Coughing and/ or wheezing. Dizziness. May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Effects of Exposure	No information available.

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

Note to physicians	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

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray.
Small Fire	In case of fire, use water spray, foam, dry chemical, or CO2.
Large Fire	In case of fire, use water spray, foam, dry chemical, or CO2.
Unsuitable extinguishing media	DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	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.
Hazardous combustion products	No information available

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	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**

Personal precautions	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. Avoid breathing vapors or mists.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	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

Methods for containment	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.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

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. Take off contaminated clothing and wash before reuse. In case of insufficient ventilation, wear suitable respiratory equipment.

General hygiene considerations

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. Avoid contact with skin, eyes or clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

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.

Packaging materials

No information available.

Storage class (TRGS 510)

Storage class 2B.

7.3. Specific end use(s)

Specific use(s)

Automotive Sealant.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other Information

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm TWA: 1200 mg/m ³ STEL 2000 ppm	TWA: 246 ppm TWA: 594 mg/m ³ STEL: 492 ppm	TWA: 600 mg/m ³ STEL: 1400 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³

		STEL 4800 mg/m ³	STEL: 1187 mg/m ³		
PROPANE 74-98-6	-	TWA: 1000 ppm TWA: 1800 mg/m ³ STEL 2000 ppm STEL 3600 mg/m ³	TWA: 1000 ppm	TWA: 1800.0 mg/m ³	-
HEPTANE 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 500 ppm TWA: 2000 mg/m ³ STEL 2000 ppm STEL 8000 mg/m ³	TWA: 400 ppm TWA: 1664 mg/m ³ STEL: 500 ppm STEL: 2085 mg/m ³	TWA: 1600 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³ Sk*
BUTANE 106-97-8	-	TWA: 800 ppm TWA: 1900 mg/m ³ STEL 1600 ppm STEL 3800 mg/m ³	TWA: 1000 ppm STEL: 980 ppm STEL: 2370 mg/m ³	TWA: 1900 mg/m ³	TWA: 600 ppm TWA: 1450 mg/m ³ TWA: 10 ppm TWA: 22 mg/m ³ STEL: 750 ppm STEL: 1810 mg/m ³
ETHYL ACETATE 141-78-6	TWA: 734 mg/m ³ TWA: 200 ppm STEL: 1468 mg/m ³ STEL: 400 ppm	TWA: 200 ppm TWA: 734 mg/m ³ STEL 400 ppm STEL 1468 mg/m ³	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³	TWA: 734 mg/m ³ TWA: 200 ppm STEL: 1468 mg/m ³ STEL: 400 ppm	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³
COPPER 7440-50-8	-	TWA: 1 mg/m ³ TWA: 0.1 mg/m ³ STEL 4 mg/m ³ STEL 0.4 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³
METHYLCYCLOHEXANE 108-87-2	-	TWA: 400 ppm TWA: 1600 mg/m ³ STEL 1600 ppm STEL 6400 mg/m ³	TWA: 400 ppm TWA: 1633 mg/m ³	TWA: 500.0 mg/m ³	-
ISOPROPYL ALCOHOL 67-63-0	-	TWA: 200 ppm TWA: 500 mg/m ³ STEL 800 ppm STEL 2000 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 400 ppm STEL: 1000 mg/m ³	TWA: 980.0 mg/m ³ STEL: 1225.0 mg/m ³	TWA: 400 ppm TWA: 999 mg/m ³ STEL: 500 ppm STEL: 1250 mg/m ³
QUARTZ 14808-60-7	TWA: 0.1 mg/m ³	TWA: 0.05 mg/m ³	TWA: 0.1 mg/m ³ TWA: 0.05 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m ³ Sk*	TWA: 800 mg/m ³ Ceiling: 1500 mg/m ³	TWA: 250 ppm TWA: 600 mg/m ³ STEL: 500 ppm STEL: 1200 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm TWA: 1200 mg/m ³ STEL: 630 ppm STEL: 1500 mg/m ³
PROPANE 74-98-6	-	-	TWA: 1000 ppm TWA: 1800 mg/m ³ STEL: 2000 ppm STEL: 3600 mg/m ³	TWA: 1000 ppm TWA: 1800 mg/m ³	TWA: 800 ppm TWA: 1500 mg/m ³ STEL: 1100 ppm STEL: 2000 mg/m ³
HEPTANE 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 1000 mg/m ³ Ceiling: 2000 mg/m ³	TWA: 200 ppm TWA: 820 mg/m ³ STEL: 400 ppm STEL: 1640 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 300 ppm TWA: 1200 mg/m ³ STEL: 500 ppm STEL: 2100 mg/m ³
BUTANE 106-97-8	-	-	TWA: 500 ppm TWA: 1200 mg/m ³ STEL: 1000 ppm STEL: 2400 mg/m ³	TWA: 800 ppm TWA: 1500 mg/m ³	TWA: 800 ppm TWA: 1900 mg/m ³ STEL: 1000 ppm STEL: 2400 mg/m ³
ETHYL ACETATE 141-78-6	TWA: 734 mg/m ³ TWA: 200 ppm STEL: 1468 mg/m ³ STEL: 400 ppm	TWA: 700 mg/m ³ Ceiling: 900 mg/m ³	TWA: 150 ppm TWA: 540 mg/m ³ STEL: 1468 mg/m ³ STEL: 400 ppm	TWA: 150 ppm TWA: 500 mg/m ³ STEL: 300 ppm STEL: 1100 mg/m ³	TWA: 200 ppm TWA: 730 mg/m ³ STEL: 400 ppm STEL: 1470 mg/m ³
COPPER 7440-50-8	-	TWA: 1 mg/m ³ TWA: 0.1 mg/m ³ Ceiling: 2 mg/m ³ Ceiling: 0.2 mg/m ³	TWA: 1.0 mg/m ³ TWA: 0.1 mg/m ³ STEL: 2 mg/m ³ STEL: 0.2 mg/m ³	TWA: 1 mg/m ³ TWA: 0.2 mg/m ³	TWA: 0.02 mg/m ³

METHYLCYCLOHEXANE 108-87-2	-	TWA: 1500 mg/m ³ Ceiling: 2000 mg/m ³	TWA: 200 ppm TWA: 805 mg/m ³ STEL: 400 ppm STEL: 1610 mg/m ³	TWA: 400 ppm TWA: 1600 mg/m ³	TWA: 400 ppm TWA: 1600 mg/m ³ STEL: 500 ppm STEL: 2000 mg/m ³
ISOPROPYL ALCOHOL 67-63-0	-	TWA: 500 mg/m ³ Sk* Ceiling: 1000 mg/m ³	TWA: 200 ppm TWA: 490 mg/m ³ STEL: 400 ppm STEL: 980 mg/m ³	TWA: 150 ppm TWA: 350 mg/m ³ STEL: 250 ppm STEL: 600 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 620 mg/m ³
QUARTZ 14808-60-7	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.3 mg/m ³ TWA: 0.1 mg/m ³ STEL: 0.6 mg/m ³ STEL: 0.2 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.05 mg/m ³ TWA: 0.1 mg/m ³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 1000 ppm STEL: 2420 mg/m ³	TWA: 500 ppm TWA: 1200 mg/m ³	TWA: 500 ppm TWA: 1200 mg/m ³ Peak: 1000 ppm Peak: 2400 mg/m ³	TWA: 1780 mg/m ³ STEL: 3560 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³
PROPANE 74-98-6	-	TWA: 1000 ppm TWA: 1800 mg/m ³	TWA: 1000 ppm TWA: 1800 mg/m ³ Peak: 4000 ppm Peak: 7200 mg/m ³	TWA: 1000 ppm TWA: 1800 mg/m ³	-
HEPTANE 142-82-5	TWA: 400 ppm TWA: 1668 mg/m ³ TWA: 1000 mg/m ³ STEL: 500 ppm STEL: 2085 mg/m ³ STEL: 1500 mg/m ³	TWA: 500 ppm TWA: 2100 mg/m ³	TWA: 500 ppm TWA: 2100 mg/m ³ Peak: 500 ppm Peak: 2100 mg/m ³	TWA: 500 ppm TWA: 2000 mg/m ³ STEL: 500 ppm STEL: 2000 mg/m ³	TWA: 2000 mg/m ³
BUTANE 106-97-8	TWA: 800 ppm TWA: 1900 mg/m ³	TWA: 1000 ppm TWA: 2400 mg/m ³	TWA: 1000 ppm TWA: 2400 mg/m ³ Peak: 4000 ppm Peak: 9600 mg/m ³	TWA: 1000 ppm TWA: 2350 mg/m ³	TWA: 2350 mg/m ³ STEL: 9400 mg/m ³
ETHYL ACETATE 141-78-6	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³	TWA: 200 ppm TWA: 730 mg/m ³	TWA: 200 ppm TWA: 750 mg/m ³ Peak: 400 ppm Peak: 1500 mg/m ³	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³ SZ+
COPPER 7440-50-8	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³	-	TWA: 0.01 mg/m ³ Peak: 0.02 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³	TWA: 0.1 mg/m ³ TWA: 0.01 mg/m ³ STEL: 0.2 mg/m ³
METHYLCYCLOHEXANE 108-87-2	TWA: 400 ppm TWA: 1600 mg/m ³ TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 200 ppm TWA: 810 mg/m ³	TWA: 200 ppm TWA: 810 mg/m ³ Peak: 400 ppm Peak: 1620 mg/m ³	TWA: 500 ppm TWA: 2000 mg/m ³ STEL: 500 ppm STEL: 2000 mg/m ³	-
ISOPROPYL ALCOHOL 67-63-0	STEL: 400 ppm STEL: 980 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ Peak: 400 ppm Peak: 1000 mg/m ³	TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³	TWA: 500 mg/m ³ TWA: 200 ppm STEL: 1000 mg/m ³ STEL: 400 ppm Sk*
QUARTZ 14808-60-7	TWA: 0.1 mg/m ³	-	-	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 1500 ppm STEL: 3630 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 250 ppm TWA: 594 mg/m ³ STEL: 500 ppm STEL: 1187 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 1000 ppm STEL: 2420 mg/m ³
PROPANE 74-98-6	STEL: 3000 ppm Simple asphyxiant	-	: Simple asphyxiant	TWA: 1000 ppm TWA: 1800 mg/m ³ TWA: 100 mg/m ³	-

				STEL: 300 mg/m ³	
HEPTANE 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 1500 ppm STEL: 6255 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 400 ppm TWA: 1639 mg/m ³ STEL: 500 ppm STEL: 2049 mg/m ³	TWA: 85 ppm TWA: 350 mg/m ³ TWA: 100 mg/m ³ STEL: 500 ppm STEL: 2085 mg/m ³ STEL: 300 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³ TWA: 200 ppm TWA: 800 mg/m ³ STEL: 750 ppm STEL: 3128 mg/m ³ STEL: 300 ppm STEL: 1200 mg/m ³
BUTANE 106-97-8	TWA: 1000 ppm STEL: 3000 ppm	-	STEL: 1000 ppm STEL: 2377 mg/m ³	TWA: 300 mg/m ³ TWA: 100 mg/m ³ STEL: 300 mg/m ³	-
ETHYL ACETATE 141-78-6	TWA: 734 mg/m ³ TWA: 200 ppm STEL: 1468 mg/m ³ STEL: 400 ppm	TWA: 734 mg/m ³ TWA: 200 ppm STEL: 1468 mg/m ³ STEL: 400 ppm	TWA: 400 ppm TWA: 1441 mg/m ³	TWA: 200 mg/m ³ TWA: 54 ppm STEL: 1468 mg/m ³ STEL: 400 ppm	TWA: 150 ppm TWA: 500 mg/m ³ Ceiling: 300 ppm Ceiling: 1100 mg/m ³
COPPER 7440-50-8	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³ STEL: 0.6 mg/m ³	-	TWA: 0.2 mg/m ³	TWA: 0.5 mg/m ³ STEL: 1 mg/m ³	TWA: 1 mg/m ³ TWA: 0.2 mg/m ³
METHYLCYCLOHEXANE 108-87-2	TWA: 400 ppm TWA: 1600 mg/m ³ STEL: 1200 ppm STEL: 4800 mg/m ³	-	TWA: 400 ppm TWA: 1606 mg/m ³	-	TWA: 50 mg/m ³
ISOPROPYL ALCOHOL 67-63-0	TWA: 200 ppm STEL: 400 ppm Sk*	-	TWA: 200 ppm TWA: 492 mg/m ³ STEL: 400 ppm STEL: 983 mg/m ³	TWA: 350 mg/m ³ STEL: 600 mg/m ³	TWA: 150 ppm TWA: 350 mg/m ³ STEL: 250 ppm STEL: 600 mg/m ³
QUARTZ 14808-60-7	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.025 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 ppm
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 1 ppm STEL: 2420 mg/m ³	TWA: 125 ppm TWA: 295 mg/m ³ STEL: 156.25 ppm STEL: 368.75 mg/m ³	TWA: 600 mg/m ³ STEL: 1800 mg/m ³
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE] 64742-49-0	-	-	-	-	TWA: 500 mg/m ³ STEL: 1500 mg/m ³
PROPANE 74-98-6	-	-	-	TWA: 500 ppm TWA: 900 mg/m ³ TWA: 40 ppm TWA: 275 mg/m ³ STEL: 625 ppm STEL: 1125 mg/m ³ STEL: 60 ppm STEL: 343.75 mg/m ³	TWA: 1800 mg/m ³
HEPTANE 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 288 ppm TWA: 1200 mg/m ³ STEL: 384 ppm STEL: 1600 mg/m ³	TWA: 200 ppm TWA: 800 mg/m ³ TWA: 40 ppm TWA: 275 mg/m ³ STEL: 250 ppm STEL: 1000 mg/m ³ STEL: 60 ppm STEL: 343.75 mg/m ³	TWA: 1200 mg/m ³ STEL: 2000 mg/m ³
BUTANE 106-97-8	-	-	-	TWA: 250 ppm TWA: 600 mg/m ³ TWA: 40 ppm	TWA: 1900 mg/m ³ STEL: 3000 mg/m ³

				TWA: 275 mg/m ³ STEL: 312.5 ppm STEL: 750 mg/m ³ STEL: 60 ppm STEL: 343.75 mg/m ³	
ETHYL ACETATE 141-78-6	TWA: 734 mg/m ³ TWA: 200 ppm STEL: 1468 mg/m ³ STEL: 400 ppm	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³	TWA: 734 mg/m ³ STEL: 1468 mg/m ³
COPPER 7440-50-8	-	-	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ TWA: 1 mg/m ³ STEL: 3 mg/m ³ STEL: 0.3 mg/m ³	TWA: 0.2 mg/m ³
METHYLCYCLOHEXANE 108-87-2	-	-	-	TWA: 200 ppm TWA: 800 mg/m ³ STEL: 250 ppm STEL: 1000 mg/m ³	TWA: 1600 mg/m ³ STEL: 3000 mg/m ³
ISOPROPYL ALCOHOL 67-63-0	-	-	-	TWA: 100 ppm TWA: 245 mg/m ³ STEL: 150 ppm STEL: 306.25 mg/m ³	TWA: 900 mg/m ³ STEL: 1200 mg/m ³ Sk*
QUARTZ 14808-60-7	-	-	TWA: 0.075 mg/m ³	TWA: 0.05 mg/m ³ TWA: 0.1 mg/m ³ TWA: 0.3 mg/m ³ STEL: 0.9 mg/m ³ STEL: 0.15 mg/m ³ STEL: 0.3 mg/m ³	TWA: 0.1 mg/m ³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
ACETONE 67-64-1	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 750 ppm	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 2420 mg/m ³ STEL: 1000 ppm	TWA: 500 ppm TWA: 1210 mg/m ³
PROPANE 74-98-6	TWA: 1000 ppm	TWA: 778 ppm TWA: 1400 mg/m ³ TWA: 700 mg/m ³ STEL: 1000 ppm STEL: 1800 mg/m ³ STEL: 1000 mg/m ³	-	TWA: 1000 ppm TWA: 1800 mg/m ³ STEL: 4000 ppm STEL: 7200 mg/m ³	TWA: 1000 ppm
HEPTANE 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 500 ppm	TWA: 500 ppm TWA: 2085 mg/m ³ TWA: 700 mg/m ³ STEL: 1000 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 500 ppm STEL: 2085 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³
BUTANE 106-97-8	TWA: 1000 ppm STEL: 1000 ppm	TWA: 700 mg/m ³ STEL: 1000 mg/m ³	TWA: 1000 ppm TWA: 2400 mg/m ³ STEL: 5000 ppm STEL: 12000 mg/m ³	TWA: 1000 ppm TWA: 2400 mg/m ³ STEL: 4000 ppm STEL: 9600 mg/m ³	TWA: 1000 ppm
ETHYL ACETATE 141-78-6	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 1468 mg/m ³ STEL: 400 ppm	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³	TWA: 200 ppm TWA: 734 mg/m ³ Ceiling: 1468 mg/m ³	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³	TWA: 200 ppm TWA: 734 mg/m ³ STEL: 400 ppm STEL: 1468 mg/m ³
COPPER 7440-50-8	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	TWA: 0.5 mg/m ³ STEL: 0.2 mg/m ³ STEL: 1.5 mg/m ³	TWA: 1 mg/m ³ TWA: 0.2 mg/m ³	-	TWA: 0.01 mg/m ³
METHYLCYCLOHEXANE 108-87-2	TWA: 400 ppm	TWA: 300 ppm TWA: 1200 mg/m ³ STEL: 375 ppm STEL: 1500 mg/m ³	TWA: 200 ppm TWA: 810 mg/m ³ Ceiling: 1620 mg/m ³	TWA: 810 mg/m ³ TWA: 200 ppm STEL: 400 ppm STEL: 1620 mg/m ³	TWA: 400 ppm TWA: 1630 mg/m ³
ISOPROPYL ALCOHOL	TWA: 200 ppm	TWA: 81 ppm	TWA: 200 ppm	TWA: 200 ppm	TWA: 200 ppm

67-63-0	STEL: 400 ppm	TWA: 200 mg/m ³ STEL: 203 ppm STEL: 500 mg/m ³	TWA: 500 mg/m ³ Ceiling: 1000 mg/m ³	TWA: 500 mg/m ³ STEL: 400 ppm STEL: 1000 mg/m ³	TWA: 500 mg/m ³ STEL: 400 ppm STEL: 1000 mg/m ³
QUARTZ 14808-60-7	TWA: 0.025 mg/m ³ TWA: 0.05 mg/m ³	TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ TWA: 0,1 mg/m ³ STEL: 0.5 mg/m ³	TWA: 0.05 mg/m ³	TWA: 0.05 mg/m ³
Chemical name	Sweden		Switzerland	United Kingdom	
ACETONE 67-64-1	NGV: 250 ppm NGV: 600 mg/m ³ Vägledande KGV: 500 ppm Vägledande KGV: 1200 mg/m ³		TWA: 500 ppm TWA: 1200 mg/m ³ STEL: 1000 ppm STEL: 2400 mg/m ³	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 1500 ppm STEL: 3620 mg/m ³	
PROPANE 74-98-6	NGV: 350 mg/m ³		TWA: 1000 ppm TWA: 1800 mg/m ³ STEL: 4000 ppm STEL: 7200 mg/m ³	-	
HEPTANE 142-82-5	NGV: 200 ppm NGV: 800 mg/m ³ NGV: 350 mg/m ³ Vägledande KGV: 300 ppm Vägledande KGV: 1200 mg/m ³		TWA: 400 ppm TWA: 1600 mg/m ³ STEL: 400 ppm STEL: 1600 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 1500 ppm STEL: 6255 mg/m ³	
BUTANE 106-97-8	NGV: 350 mg/m ³		TWA: 800 ppm TWA: 1900 mg/m ³ STEL: 3200 ppm STEL: 7600 mg/m ³	TWA: 600 ppm TWA: 1450 mg/m ³ STEL: 750 ppm STEL: 1810 mg/m ³	
ETHYL ACETATE 141-78-6	NGV: 150 ppm NGV: 550 mg/m ³ Bindande KGV: 300 ppm Bindande KGV: 1100 mg/m ³		TWA: 200 ppm TWA: 730 mg/m ³ STEL: 400 ppm STEL: 1460 mg/m ³	TWA: 734 mg/m ³ TWA: 200 ppm STEL: 1468 mg/m ³ STEL: 400 ppm	
COPPER 7440-50-8	NGV: 0.01 mg/m ³		TWA: 0.1 mg/m ³ STEL: 0.2 mg/m ³	TWA: 1 mg/m ³ TWA: 0.2 mg/m ³ STEL: 0.6 mg/m ³ STEL: 2 mg/m ³	
METHYLCYCLOHEXANE 108-87-2	-		TWA: 400 ppm TWA: 1600 mg/m ³ STEL: 800 ppm STEL: 3200 mg/m ³	-	
ISOPROPYL ALCOHOL 67-63-0	NGV: 150 ppm NGV: 350 mg/m ³ Vägledande KGV: 250 ppm Vägledande KGV: 600 mg/m ³		TWA: 200 ppm TWA: 500 mg/m ³ STEL: 400 ppm STEL: 1000 mg/m ³	TWA: 400 ppm TWA: 999 mg/m ³ STEL: 500 ppm STEL: 1250 mg/m ³	
QUARTZ 14808-60-7	NGV: 0.1 mg/m ³		TWA: 0.15 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³	

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
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	-
ISOPROPYL ALCOHOL 67-63-0	-	-	-	50 mg/L - blood (Acetone) - at the	-

				end of the work shift 50 mg/L - urine (Acetone) - at the end of the work shift	
QUARTZ 14808-60-7	-	(Note 1)	-	-	-
Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
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)
HEPTANE 142-82-5	-	-	-	250 µg/L (urine - Heptan-2,5-dione end of shift) 250 µg/L - BAT (end of exposure or end of shift) urine	250 µg/L (urine - Heptan-2,5-dione end of shift)
ISOPROPYL ALCOHOL 67-63-0	-	-	-	25 mg/L (whole blood - Acetone end of shift) 25 mg/L (urine - Acetone end of shift) 25 mg/L - BAT (end of exposure or end of shift) urine 25 mg/L - BAT (end of exposure or end of shift) blood	25 mg/L (whole blood - Acetone end of shift) 25 mg/L (urine - Acetone end of shift)
Chemical name	Hungary	Ireland	Italy MDLPS	Italy AIDII	
ACETONE 67-64-1	-	50 mg/L (urine - Acetone end of shift)	-	25 mg/L - urine (Acetone) - end of shift	
ISOPROPYL ALCOHOL 67-63-0	-	40 mg/L (urine - Acetone end of shift at end of workweek)	-	40 mg/L - urine (Acetone) - end of shift at end of workweek	
Chemical name	Latvia	Luxembourg	Romania	Slovakia	
ACETONE 67-64-1	-	-	50 mg/L - urine (Acetone) - end of shift	80 mg/L (urine - Acetone end of exposure or work shift)	
ISOPROPYL ALCOHOL 67-63-0	-	-	50 mg/L - urine (Acetone) - end of shift	-	
Chemical name	Slovenia	Spain	Switzerland	United Kingdom	
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)	-	
HEPTANE 142-82-5	-	-	200 µg/L (urine - Heptan-2 5-dione end of shift)	-	
ISOPROPYL ALCOHOL 67-63-0	25 mg/L - blood (Acetone) - at the end of the work shift 25 mg/L - urine (Acetone) - at the end of the work shift	40 mg/L (urine - Acetone end of workweek)	25 mg/L (urine - Acetone end of shift) 0.4 mmol/L (urine - Acetone end of shift) 25 mg/L (whole blood - Acetone end of shift)	-	

			0.4 mmol/L (whole blood - Acetone end of shift)	
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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
ACETONE 67-64-1	-	186 mg/kg bw/day [4] [6]	1210 mg/m ³ [4] [6] 2420 mg/m ³ [5] [7]
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE] 64742-49-0	-	-	1286.4 mg/m ³ [4] [7] 837.5 mg/m ³ [5] [6] 1066.67 mg/m ³ [5] [7]
HEPTANE 142-82-5	-	300 mg/kg bw/day [4] [6]	2085 mg/m ³ [4] [6]
ETHYL ACETATE 141-78-6	-	63 mg/kg bw/day [4] [6]	734 mg/m ³ [4] [6] 1468 mg/m ³ [4] [7] 734 mg/m ³ [5] [6] 1468 mg/m ³ [5] [7]
COPPER 7440-50-8	-	137 mg/kg bw/day [4] [6] 273 mg/kg bw/day [4] [7]	-
DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE] 68410-97-9	-	-	1286.4 mg/m ³ [4] [7] 837.5 mg/m ³ [5] [6] 1066.67 mg/m ³ [5] [7]
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC [<3% DMSO] 64742-52-5	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m ³ [4] [6] 5.58 mg/m ³ [5] [6]
METHYLCYCLOHEXANE 108-87-2	-	1.7 mg/kg bw/day [4] [6]	64.3 mg/m ³ [4] [6] 1354.6 mg/m ³ [4] [7]
PENTAERYTHRITYL ROSINATES 8050-26-8	-	5 mg/kg bw/day [4] [6]	10 mg/m ³ [5] [6]
ISOPROPYL ALCOHOL 67-63-0	-	888 mg/kg bw/day [4] [6]	500 mg/m ³ [4] [6]

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
ACETONE 67-64-1	62 mg/kg bw/day [4] [6]	-	200 mg/m ³ [4] [6]
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE] 64742-49-0	-	-	1152 mg/m ³ [4] [7] 178.57 mg/m ³ [5] [6] 640 mg/m ³ [5] [7]
HEPTANE 142-82-5	149 mg/kg bw/day [4] [6]	-	447 mg/m ³ [4] [6]
ETHYL ACETATE 141-78-6	4.5 mg/kg bw/day [4] [6]	-	367 mg/m ³ [4] [6] 734 mg/m ³ [4] [7]

Chemical name	Oral	Dermal	Inhalation
			367 mg/m ³ [5] [6] 734 mg/m ³ [5] [7]
COPPER 7440-50-8	0.041 mg/kg bw/day [4] [6]	273 mg/kg bw/day [4] [6] 273 mg/kg bw/day [4] [7]	1 mg/m ³ [5] [6] 1 mg/m ³ [5] [7]
DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE] 68410-97-9	-	-	1152 mg/m ³ [4] [7] 178.57 mg/m ³ [5] [6] 640 mg/m ³ [5] [7]
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC [<3% DMSO] 64742-52-5	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]
METHYLCYCLOHEXANE 108-87-2	0.4 mg/kg bw/day [4] [6]	-	16 mg/m ³ [4] [6] 1016 mg/m ³ [4] [7]
PENTAERYTHRITYL ROSINATES 8050-26-8	2.5 mg/kg bw/day [4] [6]	-	-
ISOPROPYL ALCOHOL 67-63-0	26 mg/kg bw/day [4] [6]	-	89 mg/m ³ [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
ACETONE 67-64-1	10.6 mg/L	21 mg/L	1.06 mg/L	-	-
ETHYL ACETATE 141-78-6	0.24 mg/L	1.65 mg/L	0.024 mg/L	-	-
COPPER 7440-50-8	7.8 µg/L	-	5.2 µg/L	-	-
METHYLCYCLOHEXANE 108-87-2	1.34 µg/L	13.4 µg/L	0.134 µg/L	-	-
PENTAERYTHRITYL ROSINATES 8050-26-8	0.1 mg/L	1 mg/L	0.01 mg/L	-	-
ISOPROPYL ALCOHOL 67-63-0	140.9 mg/L	140.9 mg/L	140.9 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
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	-
ETHYL ACETATE 141-78-6	1.15 mg/kg sediment dw	0.115 mg/kg sediment dw	650 mg/L	0.148 mg/kg soil dw	0.2 g/kg food
COPPER 7440-50-8	87 mg/kg sediment dw	676 mg/kg sediment dw	230 µg/L	65 mg/kg soil dw	-
DISTILLATES	-	-	-	-	9.33 mg/kg food

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
(PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC [<3% DMSO] 64742-52-5					
METHYLCYCLOHEXANE 108-87-2	36.2 µg/kg sediment dw	3.62 µg/kg sediment dw	273 µg/L	9.7 µg/kg soil dw	-
PENTAERYTHRITYL ROSINATES 8050-26-8	2317.75 mg/kg sediment dw	231.78 mg/kg sediment dw	2.525 mg/L	462.06 mg/kg soil dw	-
ISOPROPYL ALCOHOL 67-63-0	552 mg/kg sediment dw	552 mg/kg sediment dw	2251 mg/L	28 mg/kg soil dw	160 mg/kg food

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.

Other protective equipment No information available.

Environmental exposure controls No information available.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Aerosol
Color Copper
Odor No information available.
Odor threshold No information available

Property	Values
Melting point / freezing point	No data available
Boiling point / boiling range	56 °C
Flammability (solid, gas)	No data available

Remarks • Method
 Estimated

Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
 None known

Flammability Limit in Air

Upper flammability limit:	16.8%	
Lower flammability limit:	8.7%	
Flash point	-104 °C	Gives a flame projection at full valve opening or flashback at any degree of valve opening
Autoignition temperature	No data available	Estimated
Decomposition temperature		Remarks: Self-Accelerating decomposition temperature (SADT): 50 °C SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction.
pH	No data available	10% in deionized water
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No Data Available	Kinematic viscosity at 100 degrees C
Dynamic viscosity	No data available	Remarks: Self-Accelerating decomposition temperature (SADT): 50 °C SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction.
Water solubility	No data available	
Solubility(ies)	No Data Available	None known
Partition coefficient	No Data Available	None known
Vapor pressure	35-40 psig @ 20°C (estimated)	
Relative density	1.05	
Bulk density	No data available	
Density	No data available	
Vapor density	No data available	Air = 1
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	
9.2. Other information		
VOC content	71	

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.
Remarks	No Data Available.

10.2. Chemical stability

Stability	Stable under normal conditions.
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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.
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Hazardous polymerization No information available.

10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. Excessive heat.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Hazardous Decomposition Products Carbon oxides. Hydrogen chloride.

Section 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Inhalation 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. May cause drowsiness or dizziness. Harmful by inhalation. (based on components).

Eye contact Specific test data for the substance or mixture is not available. May cause irritation. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact 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).

Ingestion 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

Symptoms Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity Harmful by inhalation.

Numerical measures of toxicity

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

ATEmix (oral) 5,239.20 mg/kg
ATEmix (dermal) 5,387.10 mg/kg
ATEmix (inhalation-gas) 227,090.10 ppm
ATEmix (inhalation-vapor) 17.00 mg/l
ATEmix (inhalation-dust/mist) 65.50 mg/l

Unknown acute toxicity

33.93 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

24.25 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
 84.49 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
 96.63 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
 56.66 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
ACETONE	= 5800 mg/kg (Rat)	> 15700 mg/kg (Rabbit)	= 50100 mg/m ³ (Rat) 8 h
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE]	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 73680 ppm (Rat) 4 h
PROPANE	-	-	> 800000 ppm (Rat) 15 min
HEPTANE	-	= 3000 mg/kg (Rabbit)	> 29.29 mg/L (Rat) 4 h
BUTANE	-	-	= 658 g/m ³ (Rat) 4 h
ETHYL ACETATE	= 5620 mg/kg (Rat)	> 18000 mg/kg (Rabbit)	= 4000 ppm (Rat) 4 h
COPPER	-	-	> 5.11 mg/L (Rat) 4 h
DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE]	= 5170 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	> 12408 ppm (Rat) 4 h
METHYLCYCLOHEXANE	> 3200 mg/kg (Rat)	> 86700 mg/kg (Rabbit)	-
ISOPROPYL ALCOHOL	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	> 10000 ppm (Rat) 6 h

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

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

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.

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

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

STOT - single exposure May cause drowsiness or dizziness.

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

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 Very toxic to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0.02 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
ACETONE	-	LC50: 4.74 - 6.33mL/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)
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE]	-	LC50: =8.41mg/L (96h, Oncorhynchus mykiss)	-	-
HEPTANE	-	LC50: =375.0mg/L (96h, Cichlid fish)	-	-
ETHYL ACETATE	-	LC50: 220 - 250mg/L (96h, Pimephales promelas) LC50: =484mg/L (96h, Oncorhynchus mykiss) LC50: 352 - 500mg/L (96h, Oncorhynchus mykiss)	-	EC50: =560mg/L (48h, Daphnia magna)
COPPER	EC50: 0.0426 - 0.0535mg/L (72h, Pseudokirchneriella subcapitata) EC50: 0.031 - 0.054mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 0.0068 - 0.0156mg/L (96h, Pimephales promelas) LC50: <0.3mg/L (96h, Pimephales promelas) LC50: =0.2mg/L (96h, Pimephales promelas) LC50: =0.052mg/L (96h, Oncorhynchus mykiss) LC50: =1.25mg/L (96h, Lepomis macrochirus) LC50: =0.3mg/L (96h, Cyprinus carpio) LC50: =0.8mg/L (96h, Cyprinus carpio) LC50: =0.112mg/L (96h, Poecilia reticulata)	-	EC50: =0.03mg/L (48h, Daphnia magna)
METHYLCYCLOHEXANE	-	LC50: =2.07mg/L (96h,	-	-

ISOPROPYL ALCOHOL	EC50: >1000mg/L (96h, <i>Desmodesmus subspicatus</i>) EC50: >1000mg/L (72h, <i>Desmodesmus subspicatus</i>)	Oryzias latipes) LC50: =9640mg/L (96h, <i>Pimephales promelas</i>) LC50: =11130mg/L (96h, <i>Pimephales promelas</i>) LC50: >1400000µg/L (96h, <i>Lepomis macrochirus</i>)	-	EC50: =13299mg/L (48h, <i>Daphnia magna</i>)
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12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Chemical name	Partition coefficient
ACETONE	-0.24
PROPANE	1.09
HEPTANE	4.66
BUTANE	2.31
ETHYL ACETATE	0.73
ISOPROPYL ALCOHOL	0.05

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
ACETONE	The substance is not PBT / vPvB
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE]	The substance is not PBT / vPvB
PROPANE	The substance is not PBT / vPvB
HEPTANE	The substance is not PBT / vPvB
BUTANE	The substance is not PBT / vPvB
ETHYL ACETATE	The substance is not PBT / vPvB
COPPER	The substance is not PBT / vPvB
DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE]	The substance is not PBT / vPvB
METHYLCYCLOHEXANE	The substance is not PBT / vPvB
ISOPROPYL ALCOHOL	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.

Other information No information available.

Section 14: Transport information**IATA**

14.1 UN number or ID number UN 1950
14.2 UN proper shipping name Aerosols, Flammable
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

IMDG

14.1 UN number or ID number UN 1950
14.2 UN proper shipping name Aerosols, Limited Quantity (LQ)
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not regulated
14.5 Environmental hazards 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 UN 1950
14.2 UN proper shipping name Aerosols, Limited Quantity (LQ)
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None
Classification code 5TF

ADR

14.1 UN number or ID number UN 1950
14.2 UN proper shipping name Aerosols, Limited Quantity (LQ)
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not regulated
14.5 Environmental hazards Not applicable
14.6 Special precautions for user
Special Provisions None

Classification code 5TF

ADN

14.1 UN number or ID number UN 1950
 14.2 UN proper shipping name Aerosols, Flammable
 14.3 Transport hazard class(es) 2.1
 14.4 Packing group Not regulated
 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
ACETONE - 67-64-1	RG 84
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [$<0.1\%$ BENZENE] - 64742-49-0	RG 84
HEPTANE - 142-82-5	RG 84
ETHYL ACETATE - 141-78-6	RG 84
METHYLCYCLOHEXANE - 108-87-2	RG 84
ISOPROPYL ALCOHOL - 67-63-0	RG 84
QUARTZ - 14808-60-7	RG 25

Germany

Water hazard class (WGK) obviously hazardous to water (WGK 2)

TA Luft (German Air Pollution Control Regulation)

Chemical name	Number	Class
COPPER	5.2.2	Class III
QUARTZ	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
QUARTZ	Present	-	-

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 B

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
ACETONE - 67-64-1	75	-
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE] - 64742-49-0	28 29 75	-
HEPTANE - 142-82-5	75	-
BUTANE - 106-97-8	28 29 75	-
ETHYL ACETATE - 141-78-6	75	-
COPPER - 7440-50-8	75	-
DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE] - 68410-97-9	28 29 75	-
METHYLCYCLOHEXANE - 108-87-2	75	-
ISOPROPYL ALCOHOL - 67-63-0	75	-

Persistent Organic Pollutants

Not applicable

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

P3a - FLAMMABLE AEROSOLS

P3b - FLAMMABLE AEROSOLS

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

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

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
NAPHTHA (PETROLEUM), HYDROTREATED LIGHT [<0.1% BENZENE] - 64742-49-0	-	25000
DISTILLATES (PETROLEUM), LIGHT DISTILLATE HYDROTREATING PROCESS [<0.1% BENZENE] - 68410-97-9	-	25000

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

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

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

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
COPPER - 7440-50-8	Product-type 8: Wood preservatives Product-type 21: Antifouling products
ISOPROPYL ALCOHOL - 67-63-0	Product-type 2: Disinfectants and algacides not intended for direct application to humans or animals Product-type 4: Food and feed area Product-type 1: Human hygiene

International Inventories

TSCA

Complies

DSL/NDL

Complies

EINECS/ELINCS

Complies

ENCS	Does not comply
IECSC	Complies
KECI	Complies
PICCS	Complies
AICS	Complies
NZIoC	Complies
TCSI	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - 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 H-Statements referred to under section 3**

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
 H373 - May cause damage to organs through prolonged or repeated exposure
 H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects
 H411 - Toxic to aquatic life with long lasting effects

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
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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
Acute aquatic toxicity	Calculation method
Chronic 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) (AELG(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 17-Oct-2024

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

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet