Safety Data Sheet

According to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Product name **QUARTZ EXTRACLEAN PRO**

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

Intended use **SOLVENT BASED CLEANER**

Identified Uses	Industrial	Professional	Consumer
CLEANING AND WASHING	-	✓	-

1.3. Details of the supplier of the safety data sheet

Name **Tenax Spa**
Full address **Via I Maggio, 226**
District and Country **37020 Volargne (VR)**
Italy
Tel. +39 045 6887593
Fax +39 045 6862456

e-mail address of the competent person responsible for the Safety Data Sheet **msds@tenax.it**

Product distribution by: **Tenax Usa**
7606 Whitehall Executive Center Drive Suite 400, 28273 Charlotte NC, US
Tel. 001 7045831173 - Fax 001 7045833166
info@tenaxusa.com

1.4. Emergency telephone number

For urgent inquiries refer to **Infotrac**
US and Canada: 1-800-535-5053
Int'l: 1-352-323-3500
info@infotrac.net

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Flammable liquid, category 2	Highly flammable liquid and vapour.
Reproductive toxicity, category 2	Suspected of damaging fertility or the unborn child.
Aspiration hazard, category 1	May be fatal if swallowed and enters airways.
Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	Causes serious eye irritation.
Specific target organ toxicity - single exposure, category 3	May cause drowsiness or dizziness.

Hazard pictograms:

Signal words: Danger

2. Hazards identification ... / >>

Hazard statements:

H225	Highly flammable liquid and vapour.
H361	Suspected of damaging fertility or the unborn child.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements:

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P202	Do not handle until all safety precautions have been read and understood.
P242	Use only non-sparking tools.
P201	Obtain special instructions before use.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P271	Use only outdoors or in a well-ventilated area.
P264	Wash the hands thoroughly after handling.
P240	Ground / bond container and receiving equipment.
P243	Take precautionary measures against static discharge.
P241	Use explosion-proof electrical / ventilating / lighting / . . . / equipment.

Response:

P331	Do NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P308+P313	IF exposed or concerned: Get medical advice / attention.
P301+P310	IF SWALLOWED: immediately call a POISON CENTER / doctor / . . .
P312	Call a POISON CENTER / doctor / . . . / if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice / attention.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P370+P378	In case of fire: use CO2, sand, powder to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents / container according to applicable law.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		**x = Conc. %**	**Classification:**
PROPAN-2-OL			
CAS	*67-63-0*	20 ≤ x < 22	**Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336**
EC	*200-661-7*		
INDEX	*603-117-00-0*		
Hydrocarbons, C10-C13, n-alkanes, isoalkanes			
CAS	*185857-36-7*	13.5 ≤ x < 14.5	**Aspiration hazard, category 1 H304**
EC	*940-726-3*		
INDEX			
ETHYL ACETATE			
CAS	*141-78-6*	12 ≤ x < 13	**Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336**
EC	*205-500-4*		
INDEX	*607-022-00-5*		
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
CAS	*64742-48-9*	9 ≤ x < 10	**Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Specific target organ toxicity - single exposure, category 3 H336**
EC	*919-857-5*		
INDEX			

3. Composition/information on ingredients ... / >>

METHYLETHYLKETONE
CAS *78-93-3* 9 ≤ x < 10 **Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336**
EC *201-159-0*
INDEX *606-002-00-3*

1-METHYL-2-METHOXYETHYL ACETATE
CAS *108-65-6* 4 ≤ x < 4.5 **Flammable liquid, category 3 H226, Specific target organ toxicity - single exposure, category 3 H336**
EC *203-603-9*
INDEX *607-195-00-7*

TOLUENE
CAS *108-88-3* 4 ≤ x < 4.5 **Flammable liquid, category 2 H225, Reproductive toxicity, category 2 H361, Aspiration hazard, category 1 H304, Specific target organ toxicity - repeated exposure, category 2 H373, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336**
EC *203-625-9*
INDEX *601-021-00-3*

ETHANOL
CAS *64-17-5* 3.5 ≤ x < 4 **Flammable liquid, category 2 H225**
EC *200-578-6*
INDEX *603-002-00-5*

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2020

8. Exposure controls/personal protection ... / >>

PROPAN-2-OL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	492	200	983	400	
OSHA	USA	980	400			
CAL/OSHA	USA	980	400	1225	500	
NIOSH	USA	980	400	1225	500	

ETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	1441	400			
OEL	EU	734	200	1468	400	
OSHA	USA	1400	400			
CAL/OSHA	USA	1.4	400			
NIOSH	USA	1400	400			

METHYLETHYLKETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	590	200	885	300	
OEL	EU	600	200	900	300	
OSHA	USA	590	200			
CAL/OSHA	USA	590	200	885	300	
NIOSH	USA	590	200	885	300	

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	1200	197			

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	75.4	20			
OEL	EU	192	50	384	100	SKIN
OSHA	USA		200		300	
CAL/OSHA	USA	37	10	560 (C)	500 (C)	SKIN
NIOSH	USA	375	100	560	150	

2-METHOXY-1-METHYLETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	275	50	550	100	SKIN
CAL/OSHA	USA	541	100	811	150	SKIN

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-			1884	1000	
OSHA	USA	1900	1000			
CAL/OSHA	USA	1.9	1			
NIOSH	USA	1900	1000			

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8. Exposure controls/personal protection ... / >>

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

HAND PROTECTION: Protect hands with work gloves for protection from chemical agents in nitrile or neoprene (EN 374-1: 2016) at least type B or higher based on the risk assessment carried out by the company

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value			Information
Appearance		liquid			
Colour		colourless			
Odour		characteristic of solvent			
Odour threshold		Not available			
pH		2.1			
Melting point / freezing point		Not available			
Initial boiling point	>	35	°C	(95 °F)	
Boiling range		Not available			
Flash point	<	23	°C	(73,4 °F)	
Evaporation Rate		Not available			
Flammability of solids and gases		Not available			
Lower inflammability limit		Not available			
Upper inflammability limit		Not available			
Lower explosive limit		Not available			
Upper explosive limit		Not available			
Vapour pressure		Not available			
Vapour density		Not available			
Relative density		0.85	g/cc		
Solubility		soluble in organic solvents			
Partition coefficient: n-octanol/water		Not available			
Auto-ignition temperature		Not available			
Decomposition temperature		Not available			
Viscosity		Not available			
Explosive properties		Not available			
Oxidising properties		Not available			

9.2. Other information

VOC :	78,65 %	-	668,53	g/litre

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

METHYLETHYLKETONE
Reacts with: light metals,strong oxidants.Attacks various types of plastic materials.Decomposes under the effect of heat.
TOLUENE
Avoid exposure to: light.
2-METHOXY-1-METHYLETHYL ACETATE
Stable in normal conditions of use and storage.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHYL ACETATE
Risk of explosion on contact with: alkaline metals,hydrides,oleum.May react violently with: fluorine,strong oxidising agents,chlorosulphuric acid,potassium tert-butoxide.Forms explosive mixtures with: air.
METHYLETHYLKETONE
May form peroxides with: air,light,strong oxidising agents.Risk of explosion on contact with: hydrogen peroxide,nitric acid,sulphuric acid.May react dangerously with: oxidising agents,trichloromethane,alkalis.Forms explosive mixtures with: air.
TOLUENE
Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate,nitrogen dioxide,non-metal halogenates,acetic acid,organic nitrocompounds.May form explosive mixtures with: air.May react dangerously with: strong oxidising agents,strong acids,sulphur.
2-METHOXY-1-METHYLETHYL ACETATE
May react violently with: oxidising substances,strong acids,alkaline metals.
ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHYL ACETATE
Avoid exposure to: light,sources of heat,naked flames.
METHYLETHYLKETONE
Avoid exposure to: sources of heat.
ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

ETHYL ACETATE
Incompatible with: acids,bases,strong oxidants,aluminium,nitrates,chlorosulphuric acid.Incompatible materials: plastic materials.
METHYLETHYLKETONE
Incompatible with: strong oxidants,inorganic acids,ammonia,copper,chloroform.
2-METHOXY-1-METHYLETHYL ACETATE
Incompatible with: oxidising substances,strong acids,alkaline metals.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

11. Toxicological information ... / >>

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

TOLUENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

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

TOLUENE
Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

TOLUENE
Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rabbit
LC50 (Inhalation)	> 4951 mg/l/4h rat

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Oral)	8530 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rat

TOLUENE

LD50 (Oral)	5580 mg/kg Rat
LD50 (Dermal)	12124 mg/kg Rabbit
LC50 (Inhalation)	28.1 mg/l/4h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

PROPAN-2-OL

LD50 (Oral)	4710 mg/kg Rat
LD50 (Dermal)	12800 mg/kg Rat
LC50 (Inhalation)	72.6 mg/l/4h Rat

METHYLETHYLKETONE

LD50 (Oral)	2737 mg/kg Rat
LD50 (Dermal)	6480 mg/kg Rabbit
LC50 (Inhalation)	23.5 mg/l/8h Rat

ETHYL ACETATE

LD50 (Oral)	5620 mg/kg ratto
LD50 (Dermal)	> 20000 mg/kg coniglio
LC50 (Inhalation)	> 6000 ppm/4h ratto

Hydrocarbons, C10-C13, n-alkanes, isoalkanes

LD50 (Oral)	> 5000 mg/kg Ratto
LD50 (Dermal)	> 5000 mg/kg Coniglio

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

11. Toxicological information ... / >>

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
108-88-3 TOLUENE
ACGIH:: A4
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

TOLUENE
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

REPRODUCTIVE TOXICITY

Suspected of damaging fertility or the unborn child

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Toxic for aspiration

12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

2-METHOXY-1-METHYLETHYL ACETATE

LC50 - for Fish	134 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	408 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Pseudokirchneriella subcapitata

PROPAN-2-OL

LC50 - for Fish	9640 mg/l/96h Pimephales promelas
EC50 - for Crustacea	13299 mg/l/48h Dapnia magna

12. Ecological information ... / >>

METHYLETHYLKETONE	
LC50 - for Fish	2993 mg/l/96h Pimephales Promelas
EC50 - for Crustacea	308 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2029 mg/l/96h Pseudokirchneriella subcapitata
ETHYL ACETATE	
LC50 - for Fish	230 mg/l/96h pimephales promelas
EC50 - for Crustacea	165 mg/l/48h daphnia
Hydrocarbons, C10-C13, n-alkanes, isoalkanes	
LC50 - for Fish	> 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Pseudokirchneriella subcapitata

12.2. Persistence and degradability

2-METHOXY-1-METHYLETHYL ACETATE	
Solubility in water Rapidly degradable	> 10000 mg/l
TOLUENE	
Solubility in water Rapidly degradable	100 - 1000 mg/l
ETHANOL	
Solubility in water Rapidly degradable	1000 - 10000 mg/l
PROPAN-2-OL Rapidly degradable	
METHYLETHYLKETONE	
Solubility in water Rapidly degradable	> 10000 mg/l
ETHYL ACETATE	
Solubility in water Rapidly degradable	> 10000 mg/l
Hydrocarbons, C10-C13, n-alkanes, isoalkanes Rapidly degradable	

12.3. Bioaccumulative potential

2-METHOXY-1-METHYLETHYL ACETATE	
Partition coefficient: n-octanol/water	1.2
TOLUENE	
Partition coefficient: n-octanol/water	2.73
BCF	90

12. Ecological information ... / >>

ETHANOL

Partition coefficient: n-octanol/water -0.35

PROPAN-2-OL

Partition coefficient: n-octanol/water 0.05

METHYLETHYLKETONE

Partition coefficient: n-octanol/water 0.3

ETHYL ACETATE

Partition coefficient: n-octanol/water 0.68

BCF 30

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name

ADR / RID: FLAMMABLE LIQUID, N.O.S. (PROPAN-2-OL; ETHYL ACETATE)
IMDG: FLAMMABLE LIQUID, N.O.S. (PROPAN-2-OL; ETHYL ACETATE)
IATA: FLAMMABLE LIQUID, N.O.S. (PROPAN-2-OL; ETHYL ACETATE)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group

ADR / RID, IMDG, IATA: II

14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
	Special Provision: 640D		
IMDG:	EMS: F-E, S-E	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

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

U.S. Federal Regulations

TSCA:
All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):
78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE
34590-94-8 DIPROPYLENE GLYCOL MONOMETHYL ETHER (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
108-88-3 TOLUENE

Clean Water Act – Toxic Pollutants:
108-88-3 TOLUENE

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL
108-88-3 TOLUENE
34590-94-8 DIPROPYLENE GLYCOL MONOMETHYL ETHER (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
141-78-6 ETHYL ACETATE

15. Regulatory information ... / >>

78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL
108-88-3 TOLUENE
34590-94-8 DIPROPYLENE GLYCOL MONOMETHYL ETHER (Glycol ethers)

RCRA Code:
141-78-6 ETHYL ACETATE
78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
67-63-0 PROPAN-2-OL
141-78-6 ETHYL ACETATE
78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE
64-17-5 ETHANOL
34590-94-8 DIPROPYLENE GLYCOL MONOMETHYL ETHER (Glycol ethers)

Minnesota:
67-63-0 PROPAN-2-OL
141-78-6 ETHYL ACETATE
78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE
64-17-5 ETHANOL
34590-94-8 DIPROPYLENE GLYCOL MONOMETHYL ETHER (Glycol ethers)

New Jersey:
67-63-0 PROPAN-2-OL
141-78-6 ETHYL ACETATE
78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE
64-17-5 ETHANOL
34590-94-8 DIPROPYLENE GLYCOL MONOMETHYL ETHER (Glycol ethers)

New York:
141-78-6 ETHYL ACETATE
78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE

Pennsylvania:
67-63-0 PROPAN-2-OL
141-78-6 ETHYL ACETATE
78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE
64-17-5 ETHANOL
34590-94-8 DIPROPYLENE GLYCOL MONOMETHYL ETHER (Glycol ethers)

California:
67-63-0 PROPAN-2-OL
141-78-6 ETHYL ACETATE
78-93-3 METHYLETHYLKETONE
108-88-3 TOLUENE
64-17-5 ETHANOL
34590-94-8 DIPROPYLENE GLYCOL MONOMETHYL ETHER (Glycol ethers)

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
108-88-3 TOLUENE D/R

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

15. Regulatory information ... / >>

None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H361	Suspected of damaging fertility or the unborn child.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website

16. Other information ... / >>

- California Safe Drinking Water and Toxic Enforcement Act- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Product classification derives from criteria established by the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200), unless determined otherwise in Section 11 and 12. The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:
The following sections were modified:
01 / 03 / 08 / 09 / 11 / 12 / 15.