

Safety Data Sheet

According to Canadian HPR - WHMIS 2015

1. Identification

1.1. Product identifier

Code: **CERA FLUIDA**
 Product name: **CERA FLUIDA**

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

Intended use: **SOLUTION WAXES TO PROTECT AND BRIGHTEN**

| Identified Uses | Industrial | Professional | Consumer |
|---|------------|--------------|----------|
| ADHESIVE SYSTEM/TREATMENT FOR STONE SECTOR | ✓ | ✓ | - |

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**

Supplier: **Tenax Usa**
7606 Whitehall Executive Center Drive Suite 400, 28273 Charlotte NC, US
 Tel. 001 7045831173 - Fax 001 7045833166
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1.4. Emergency telephone number

For urgent inquiries refer to **24hrs:**

Manitoba Poison Centre 1-855-7POISON (1-855-776-4766)

BC Drug and Poison Information Centre (DPIC)
 1-800-567-8911 (toll free in BC)
 (604) 682-5050 (Greater Vancouver or outside of BC)

Centre antipoison du Québec 1-800-463-5060

IWK Regional Poison Centre
 1-800-565-8161 (within NS and PEI only)
 (902) 470-8161 (Halifax or outside NS, PEI)

Poison And Drug Information Services (PADIS)
 1-800-332-1414 (toll free in Alberta, Northwest Territories)
 1-866-454-1212 (toll free in Saskatchewan)
 (403) 944-1414 (in Calgary, outside of Alberta, or VOIP users)

Ontario Poison Centre 1-800-268-9017

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in Canada's Hazardous Products Regulations (HPR) (WHMIS 2015). 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.

2. Hazards identification ... / >>

Classification and Hazard Statement

Flammable liquid, category 2

Aspiration hazard, category 1

Specific target organ toxicity - single exposure, category 3

Highly flammable liquid and vapour.

May be fatal if swallowed and enters airways.

May cause drowsiness or dizziness.

Hazard pictograms:



Signal words:

Danger

Hazard statements:

H225

Highly flammable liquid and vapour.

H304

May be fatal if swallowed and enters airways.

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.

P261

Avoid breathing dust / fume / gas / mist / vapours / spray.

P242

Use non-sparking tools.

P280

Wear protective gloves / eye protection / face protection.

P271

Use only outdoors or in a well-ventilated area.

P240

Ground and bond container and receiving equipment.

P243

Take action to prevent static discharges.

P241

Use explosion-proof [electrical / ventilating / lighting / . . .] equipment.

Response:

P331

Do NOT induce vomiting.

P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P312

Call a POISON CENTRE / doctor / . . . if you feel unwell.

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

Environmental classification as for Reg. (EC) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement

Hazardous to the aquatic environment, chronic toxicity, category 3

Harmful to aquatic life with long lasting effects.

Hazard statements:

H412

Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273

Avoid release to the environment.

Response:

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Storage:

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Disposal:

P501

Dispose of contents / container according to applicable law.

Additional hazards

Repeated exposure may cause skin dryness or cracking.

3. Composition/information on ingredients

3.2. Mixtures

Contains:

| Identification | x = Conc. % (w/w) | Classification: |
|---|------------------------|---|
| HYDROCARBONS, C9-C10, N-ALKANES, ISOALKANES, CYCLIC, < 2% AROMATIC | | |
| CAS | 47 ≤ x < 49 | Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, chronic toxicity, category 3 H412 |
| HYDROCARBONS, C9-C11, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS | | |
| CAS | 64742-48-9 34 ≤ x < 36 | Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Specific target organ toxicity - single exposure, category 3 H336 |
| ETHYL ACETATE | | |
| ETHYL ACETATE | | |
| CAS | 141-78-6 5 ≤ x < 6 | Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336 |
| N-BUTYL ACETATE | | |
| N-BUTYL ACETATE | | |
| CAS | 123-86-4 3.5 ≤ x < 4 | Flammable liquid, category 3 H226, Specific target organ toxicity - single exposure, category 3 H336 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

* METHANOL: present as an impurity

4. First-aid measures

4.1. Description of first aid measures

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Take off contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice.

Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

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

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

If symptoms occur, whether acute or delayed, consult a doctor.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

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.

Combustion products: mainly COx.

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

7. Handling and storage ... / >>

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:

| | | |
|----|-----------|--|
| EU | OEL EU | Directive (EU) 2022/431; 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 2023 |
| | RCP TLV | ACGIH TLVs and BEIs – Appendix H |

HYDROCARBONS, C9-C11, N-ALKANS, ISOALKANS, CYCLICS, <2% AROMATICS

Threshold Limit Value

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

METHANOL

Threshold Limit Value

| Type | Country | TWA/8h mg/m3 | ppm | STEL/15min mg/m3 | ppm | Remarks / Observations |
|-----------|---------|-----------------|-----|---------------------|-----|------------------------|
| TLV-ACGIH | - | 262 | 200 | 328 | 250 | SKIN |
| OEL | EU | 260 | 200 | | | |
| OSHA | USA | 260 | 200 | | | |

ETHYL ACETATE

Threshold Limit Value

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

N-BUTYL ACETATE

Threshold Limit Value

| Type | Country | TWA/8h mg/m3 | ppm | STEL/15min mg/m3 | ppm | Remarks / Observations |
|-----------|---------|-----------------|-----|---------------------|-----|------------------------|
| OEL | EU | 241 | 50 | 723 | 150 | |
| TLV-ACGIH | - | | 50 | | 150 | |
| OSHA | USA | 710 | 150 | | | |

Paraffin waxes and hydrocarbon waxes

Threshold Limit Value

| Type | Country | TWA/8h mg/m3 | ppm | STEL/15min mg/m3 | ppm | Remarks / Observations |
|-----------|---------|-----------------|-----|---------------------|-----|------------------------|
| TLV-ACGIH | - | 2 | | | | |

HYDROCARBONS, C9-C10, N-ALKANES, ISOALKANES, CYCLIC, < 2% AROMATIC

Threshold Limit Value

| Type | Country | TWA/8h mg/m3 | ppm | STEL/15min mg/m3 | ppm | Remarks / Observations |
|-----------|---------|-----------------|-----|---------------------|-----|------------------------|
| TLV-ACGIH | - | 1595 | | | | |
| RCP TLV | -- | 1200 | 226 | | | |

Legend:

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

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

ETHYL ACETATE

Sampling method: https://amcaw.ifa.dguv.de/substance/methoden/050-ethyl_acetate_2016.pdf

N-BUTYL ACETATE

Sampling methods: https://amcaw.ifa.dguv.de/substance/methoden/037-n-butyl_acetate_2016.pdf

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.

The following should be considered when choosing work glove material (OSHA 29 CFR 1910.138): compatibility, degradation, permeability time.

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, CSA Standard CAN/CSA-Z94.3-92).

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 limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134, CSA Standard Z94.4-02). 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, CSA Standard Z94.4-02.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

HAND PROTECTION: Protect hands with work gloves for protection from chemical agents in nitrile or fluoroelastomer (EN 374-1: 2016) at least type B or higher based on the risk assessment carried out by the company. Breakthrough time > 480 minutes.

Material thickness:

NITRILE

short contact > 0.38 mm

prolonged contact > 0.55 mm

FLUOROELASTOMER

short contact > 0.50 mm

prolonged contact > 1.50 mm

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Properties | Value | Information |
|--------------------------------|--------------------|--|
| Appearance | dense liquid | |
| Colour | white | |
| Odour | typical of solvent | |
| Odour threshold | not available | |
| pH | not available | Reason for missing data: substance/mixture is non-polar/aprotic (eg: an organic solvent mixture) |
| Melting point / freezing point | not available | |
| Initial boiling point | > 35 °C (95 °F) | |
| Boiling range | not available | |
| Flash point | 5 °C (41 °F) | Method: ASTM D93-20 |
| Evaporation rate | not available | |
| Flammability | not available | |
| Lower explosive limit | not available | |
| Upper explosive limit | not available | |
| Vapour pressure | not available | |
| Vapour density | not available | |
| Relative density | 0.82 gr/ml | |

9. Physical and chemical properties ... / >>

| | |
|--|-----------------------------|
| 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 : 91,58 % - 750,98 g/litre

10. Stability and reactivity

10.1. Reactivity

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

ETHYL ACETATE

Decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

N-BUTYL ACETATE

Decomposes on contact with: water.

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.

N-BUTYL ACETATE

Risk of explosion on contact with: strong oxidising agents.May react dangerously with: alkaline hydroxides,potassium tert-butoxide.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.

N-BUTYL ACETATE

Avoid exposure to: moisture,sources of heat,naked flames.

10.5. Incompatible materials

ETHYL ACETATE

Incompatible with: acids,bases,strong oxidants,chlorosulphuric acid.

N-BUTYL ACETATE

Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

11. Toxicological information ... / >>

N-BUTYL ACETATE

WORKERS: inhalation; contact with the skin.

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

N-BUTYL ACETATE

In humans, the substance's vapours cause irritation of the eyes and nose. In the event of repeated exposure, skin irritation, dermatitis (dryness and cracking of the skin) and keratitis appear.

Interactive effects

N-BUTYL ACETATE

A case of acute intoxication been reported involving a 33 year old worker while cleaning a tank with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The person had irritation of the conjunctiva and upper respiratory tract, drowsiness and motor coordination disorders, which disappeared within 5 hours. The symptoms are attributed to poisoning by mixed xylenes and butyl acetate, with a possible synergistic effect responsible for the neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of butyl acetate and isobutanol vapours, but with uncertainty concerning the responsibility of a particular solvent (INRC, 2011).

ACUTE TOXICITY

HYDROCARBONS, C9-C11, N-ALKANS, ISOALKANS, CYCLICS, <2% AROMATICS

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

ETHYL ACETATE

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

N-BUTYL ACETATE

LD50 (Oral): > 6400 mg/kg Rat
LD50 (Dermal): > 5000 mg/kg Rabbit
LC50 (Inhalation vapours): 21.1 mg/l/4h Rat

HYDROCARBONS, C9-C10, N-ALKANES, ISOALKANES, CYCLIC, < 2% AROMATIC

LD50 (Oral): > 5000 mg/kg rat
LD50 (Dermal): > 2000 mg/kg rabbit
LC50 (Inhalation mists/powders): 21.1 mg/l/4h rat

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

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

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Toxic for aspiration

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it has negative effects on the aquatic environment.

12.1. Toxicity

HYDROCARBONS, C9-C11, N-ALKANS, ISOALKANS, CYCLICS, <2% AROMATICS

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

ETHYL ACETATE

| | |
|----------------------|----------------------------------|
| LC50 - for Fish | 230 mg/l/96h pimephales promelas |
| EC50 - for Crustacea | 165 mg/l/48h daphnia |

N-BUTYL ACETATE

| | |
|-----------------------------------|---------------------------------|
| LC50 - for Fish | 18 mg/l/96h pimephales promelas |
| EC50 - for Crustacea | > 44 mg/l/48h daphnia |
| EC50 - for Algae / Aquatic Plants | 675 mg/l/72h |
| Chronic NOEC for Crustacea | 23 mg/l 21d |

HYDROCARBONS, C9-C10, N-ALKANES, ISOALKANES, CYCLIC, < 2% AROMATIC

| | |
|-----------------------------------|---|
| LC50 - for Fish | 8.2 mg/l/96h Pimephales promelas |
| EC50 - for Crustacea | 4.5 mg/l/48h Daphnia magna |
| EC50 - for Algae / Aquatic Plants | 3.1 mg/l/72h Pseudokirchnerella subcapitata |

12.2. Persistence and degradability

HYDROCARBONS, C9-C11, N-ALKANS, ISOALKANS, CYCLICS, <2% AROMATICS

Water, rapid biodegradability DURATION 28 days - Test results: Base: degradation percentage 89

ETHYL ACETATE

| | |
|---------------------|--------------|
| Solubility in water | > 10000 mg/l |
| Rapidly degradable | |

N-BUTYL ACETATE

| | |
|---------------------|-------------------|
| Solubility in water | 1000 - 10000 mg/l |
| Rapidly degradable | |

12.3. Bioaccumulative potential

12. Ecological information ... / >>

ETHYL ACETATE

Partition coefficient: n-octanol/water 0.68

BCF 30

N-BUTYL ACETATE

Partition coefficient: n-octanol/water 2.3

BCF 15.3

12.4. Mobility in soil

N-BUTYL ACETATE

Partition coefficient: soil/water < 3

HYDROCARBONS, C9-C10, N-ALKANES, ISOALKANES, CYCLIC, < 2% AROMATIC

Partition coefficient: soil/water 1.78

12.5. Results of PBT and vPvB assessment

PBT substances contained:

HYDROCARBONS, C9-C11, N-ALKANS, ISOALKANS, CYCLICS, <2% AROMATICS

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: UN 1993

14.2. UN proper shipping name

ADR / RID: FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE; HYDROCARBONS, C9-C10, N-ALKANES, ISOALKANES, CYCLIC, < 2% AROMATIC)

IMDG: FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE; HYDROCARBONS, C9-C10, N-ALKANES, ISOALKANES, CYCLIC, < 2% AROMATIC)

IATA: FLAMMABLE LIQUID, N.O.S. (ETHYL ACETATE; HYDROCARBONS, C9-C10, N-ALKANES, ISOALKANES, CYCLIC, < 2% AROMATIC)

14. Transport information ... / >>

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

14.5. Environmental hazards

ADR / RID: NO
IMDG: not marine pollutant
IATA: NO

14.6. Special precautions for user

| | | | |
|------------|-----------------------------------|--------------------------|--------------------------------|
| ADR / RID: | HIN - Kemler: 33 | Limited Quantities: 1 lt | Tunnel restriction code: (D/E) |
| | Special provision: 274, 601, 640D | | |
| IMDG: | EMS: F-E, S-E | Limited Quantities: 1 lt | |
| IATA: | Cargo: | Maximum quantity: 60 L | Packaging instructions: 364 |
| | Passengers: | Maximum quantity: 5 L | Packaging instructions: 353 |
| | Special provision: | 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

Substances subject to the Rotterdam Convention:
None

Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).

Safety Data Sheet according to WHMIS 2015.

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. |
| H304 | May be fatal if swallowed and enters airways. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| H412 | Harmful to aquatic life with long lasting effects. |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)

16. Other information ... / >>

- CLP: Regulation (EC) 1272/2008
- EmS: Emergency Schedule
- 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
- REACH: Regulation (EC) 1907/2006
- 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.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 5
- 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

- Hazard Products Regulation (HPR)
- WHMIS 2015
- ONTARIO R.R.O. 1990, Regulation 883 (version July 2016)
- IARC website
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act

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 Canada`s Hazardous Products Regulations (HPR) (WHMIS 2015), 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 / 04 / 08 / 09 / 10 / 11 / 12 / 14.