

Safety Data Sheet

According to Canadian HPR - WHMIS 2015

1. Identification

1.1. Product identifier

Code: **HYDREX**
 Product name **HYDREX**

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

Intended use **WATER-OILPROOF FOR STONES.**

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
info@tenaxusa.com

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.

Classification and Hazard Statement

Flammable liquid, category 3
 Reproductive toxicity, category 1B
 Aspiration hazard, category 1

Flammable liquid and vapour.
 May damage fertility or the unborn child.
 May be fatal if swallowed and enters airways.

2. Hazards identification ... / >>

Specific target organ toxicity - single exposure, category 3

May cause drowsiness or dizziness.

Hazard pictograms:



Signal words:

Danger

Hazard statements:

H226 Flammable liquid and vapour.
H360 May damage fertility or the unborn child.
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.
P202 Do not handle until all safety precautions have been read and understood.
P242 Use 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.
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

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

82 ≤ x < 84

Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Specific target organ toxicity - single exposure, category 3 H336

EC 919-857-5
CAS 64742-48-9
REACH Reg. 01-2119463258-33

N-BUTYL ACETATE

N-BUTYL ACETATE

INDEX 607-025-00-1

8.5 ≤ x < 9.5

Flammable liquid, category 3 H226, Specific target organ toxicity - single exposure, category 3 H336

EC 204-658-1
CAS 123-86-4
REACH Reg. 01-2119485493-29

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

DIOCTYL TIN DILAURATE

INDEX 050-031-00-9 $0.1 \leq x < 0.4$

Reproductive toxicity, category 1B H360, Specific target organ toxicity - repeated exposure, category 1 H372

EC 222-883-3

CAS 3648-18-8

REACH Reg. 01-2119979527-19

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

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. Accidental release measures ... / >>

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. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. 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:

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 2022

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

Threshold Limit Value

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

N-BUTYL ACETATE

Threshold Limit Value

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

Legend:

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

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.

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

The following should be considered when choosing work glove material (OSHA 29 CFR 1910.138): 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, 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 class must be chosen according to the limit of use concentration (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.

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	liquid	
Colour	colourless	
Odour	aromatic	
Odour threshold	not determined	
pH	not available	Reason for missing data: substance/mixture is non-polar/aprotic (eg: an organic solvent mixture)
Melting point / freezing point	< -20 °C	
Initial boiling point	124 °C (255,2 °F)	
Boiling range	124-200 °C	
Flash point	27 °C (80,6 °F)	
Evaporation rate	not determined	
Flammability	not available	
Lower inflammability limit	not determined	
Upper inflammability limit	not determined	
Lower explosive limit	not available	
Upper explosive limit	not available	
Vapour pressure	not available	
Vapour density	not determined	
Relative density	0.8 g/cm ³	
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	> 200 °C	
Decomposition temperature	not determined	
Viscosity	not available	
Explosive properties	not available	
Oxidising properties	not available	

9.2. Other information

VOC : 92,31 % - 738,46 g/litre

10. Stability and reactivity

10.1. Reactivity

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

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.

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.

N-BUTYL ACETATE

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

10.5. Incompatible materials

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

Information not available

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

Information not available

Interactive effects

Information not available

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

11. Toxicological information ... / >>

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

DIOCTYL TIN DILAURATE
LD50 (Oral): 2000 mg/kg ratto
LD50 (Dermal): 2000 mg/kg ratto

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

May damage fertility or the unborn child

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

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

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 subcapitata*

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

12. Ecological information ... / >>

Chronic NOEC for Crustacea 23 mg/l 21d

12.2. Persistence and degradability

N-BUTYL ACETATE

Solubility in water 1000 - 10000 mg/l
Rapidly degradable

12.3. Bioaccumulative potential

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

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: 1993

14.2. UN proper shipping name

ADR / RID: FLAMMABLE LIQUID, N.O.S. (HYDROCARBONS, C9-C11, N-ALKANS, ISOALKANS, CYCLICS, <2% AROMATICS;
N-BUTYL ACETATE)
IMDG: FLAMMABLE LIQUID, N.O.S. (HYDROCARBONS, C9-C11, N-ALKANS, ISOALKANS, CYCLICS, <2% AROMATICS;
N-BUTYL ACETATE)
IATA: FLAMMABLE LIQUID, N.O.S. (HYDROCARBONS, C9-C11, N-ALKANS, ISOALKANS, CYCLICS, <2% AROMATICS;
N-BUTYL ACETATE)

16. Other information ... / >>

- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- 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 / 02 / 03 / 08 / 09 / 11 / 12 / 14 / 15 / 16.