

PENTYL NITRITE N-PENTANOL MIXTURE

## SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

### SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name : PENTYL NITRITE N-PENTANOL MIXTURE 8,10,13,15,24,30,40 mL

UFI : WVG6-RRUC-242F-STWQ

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

Relevant identified uses: Multiple uses identified (solvent, leather cleaner, degreaser, intermediate substance).

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

Registered company name : PARCEL WORLD DISTRIBUTION.

Address : Rue de la Chapelle 9.8017.STRASSEN.Luxembourg.

Telephone : +353 1 442 9923. Fax : -.

labo@pwd-factory.com

#### 1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

#### Other emergency numbers

National Poisons Information Service of England: <http://npis.org> - NHS 111: dial 111 - National Poisons Information Centre of Ireland: 353

(1) 809 2166 - European Emergency Number Association (EENA) : 112

### SECTION 2 : HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Flammable liquid, Category 3 (Flam. Liq. 3, H226).

Acute oral toxicity, Category 4 (Acute Tox. 4, H302).

Acute inhalation toxicity, Category 4 (Acute Tox. 4, H332).

Skin corrosion, Category 1 (Skin Corr. 1, H314).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

Skin sensitisation, Category 1 (Skin Sens. 1, H317).

Germ cell mutagenicity, Category 2 (Muta. 2, H341).

Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H335).

Hazardous to the aquatic environment - Acute hazard, Category 1 (Aquatic Acute 1, H400).

#### 2.2. Label elements

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS05



GHS09



GHS08



GHS02



GHS07

Signal Word :

DANGER

Product identifiers :

EC 207-332-7

PENTYL NITRITE

EC 200-752-1

1-PENTANOL

Hazard statements :

H226

Flammable liquid and vapour.

H302 + H332

Harmful if swallowed or if inhaled.

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

H335

May cause respiratory irritation.

H341

Suspected of causing genetic defects .

H400

Very toxic to aquatic life.

## PENTYL NITRITE N-PENTANOL MIXTURE

## Precautionary statements - Prevention :

|      |                                                                                                |
|------|------------------------------------------------------------------------------------------------|
| P201 | Obtain special instructions before use.                                                        |
| P202 | Do not handle until all safety precautions have been read and understood.                      |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P260 | Do not breathe mist/vapours.                                                                   |
| P264 | Wash hands thoroughly after handling.                                                          |
| P273 | Avoid release to the environment.                                                              |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection.                     |

## Precautionary statements - Response :

|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P301 + P312        | IF SWALLOWED: Call a POISON CENTER/doctor/if you feel unwell.                                                                    |
| P301 + P330 + P331 | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.                                                                               |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].                         |
| P304 + P340        | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313        | IF exposed or concerned: Get medical advice/attention.                                                                           |
| P333 + P313        | If skin irritation or rash occurs: Get medical advice/attention.                                                                 |
| P362 + P364        | Take off contaminated clothing and wash it before reuse.                                                                         |
| P391               | Collect spillage.                                                                                                                |

## Precautionary statements - Storage :

|             |                                              |
|-------------|----------------------------------------------|
| P403 + P235 | Store in a well-ventilated place. Keep cool. |
|-------------|----------------------------------------------|

## Precautionary statements - Disposal :

|      |                                                                                            |
|------|--------------------------------------------------------------------------------------------|
| P501 | Dispose of contents/container at a disposal facility in accordance with local regulations. |
|------|--------------------------------------------------------------------------------------------|

## 2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq 0.1\%$  published by the European Chemicals Agency (ECHA) under article 59 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contain substances  $\geq 0.1\%$  with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

## 3.2. Mixtures

## Composition :

| Identification                                                             | Classification (EC) 1272/2008                                                                                                                                                                                                       | Note | %                   |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------|
| CAS: 463-04-7<br>EC: 207-332-7<br><br>PENTYL NITRITE                       | GHS07, GHS05, GHS09, GHS08, GHS02<br>Dgr<br>Flam. Liq. 2, H225<br>Acute Tox. 4, H302<br>Skin Corr. 1, H314<br>Skin Sens. 1, H317<br>Eye Dam. 1, H318<br>Acute Tox. 4, H332<br>Muta. 2, H341<br>Aquatic Acute 1, H400<br>M Acute = 1 | [ii] | 50 $\leq$ x % < 100 |
| CAS: 71-41-0<br>EC: 200-752-1<br>REACH: 01-2119491284-34<br><br>1-PENTANOL | GHS07, GHS05, GHS02<br>Dgr<br>Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Acute Tox. 4, H332<br>STOT SE 3, H335                                                                                                | [i]  | 25 $\leq$ x % < 50  |

## Specific concentration limits:

| Identification                                                             | Specific concentration limits | ATE                                                                       |
|----------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------|
| CAS: 71-41-0<br>EC: 200-752-1<br>REACH: 01-2119491284-34<br><br>1-PENTANOL |                               | inhalation: ATE = 1.5 mg/l 4h<br>(dust/mist)<br>oral: ATE = 3645 mg/kg BW |

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**Information on ingredients :**

(Full text of H-phrases: see section 16)

[i] Substance for which maximum workplace exposure limits are available.

[ii] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

**SECTION 4 : FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

**4.1. description of first aid measures**

**In the event of exposure by inhalation :**

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

Do not proceed with mouth-to-mouth or mouth-to-nose resuscitation. Use the appropriate equipment.

**In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

**In the event of splashes or contact with skin :**

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Remove any soiled or splashed clothing immediately.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

**In the event of swallowing :**

Do not give the patient anything orally.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

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

No data available.

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

No data available.

**SECTION 5 : FIREFIGHTING MEASURES**

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

**5.1. Extinguishing media**

Keep packages near the fire cool, to prevent pressurised containers from bursting.

**Suitable methods of extinction**

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- halon
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO<sub>2</sub>)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

**Unsuitable methods of extinction**

In the event of a fire, do not use :

- water jet

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

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)

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- carbon dioxide (CO<sub>2</sub>)

**5.3. Advice for firefighters**

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

**SECTION 6 : ACCIDENTAL RELEASE MEASURES**

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

Consult the safety measures listed under headings 7 and 8.

**For non first aid worker**

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

**6.2. Environmental precautions**

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

**6.3. Methods and material for containment and cleaning up**

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

Clean preferably with a detergent, do not use solvents.

**6.4. Reference to other sections**

No data available.

**SECTION 7 : HANDLING AND STORAGE**

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

**7.1. Precautions for safe handling**

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

**Fire prevention :**

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

The mixture can become electrostatically charged: always ground when decanting. Wear antistatic shoes and clothing and make floors of non-conductive

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

**Recommended equipment and procedures :**

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

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Avoid exposure - obtain special instructions before use.

Packages which have been opened must be reclosed carefully and stored in an upright position.

**Prohibited equipment and procedures :**

No smoking, eating or drinking in areas where the mixture is used.

Never open the packages under pressure.

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

No data available.

**Storage**

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from food and drink, including those for animals.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

Avoid accumulation of electrostatic charges.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

**Packaging**

Always keep in packaging made of an identical material to the original.

**7.3. Specific end use(s)**

No data available.

**SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters****Occupational exposure limits :**

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

| CAS     | VME : | VME :              | Excess | Notes |
|---------|-------|--------------------|--------|-------|
| 71-41-0 |       | 20 ppm<br>73 mg/m3 |        | 2 (I) |

- Austria (BGBl. II Nr. 156/2021) :

| CAS     | TWA :                | STEL :               | Ceiling : | Definition : | Criteria : |
|---------|----------------------|----------------------|-----------|--------------|------------|
| 71-41-0 | 100 ppm<br>360 mg/m3 | 200 ppm<br>720 mg/m3 |           |              |            |

- Switzerland (Suva 2021) :

| CAS     | VME                | VLE                 | Valeur plafond | Notations |
|---------|--------------------|---------------------|----------------|-----------|
| 71-41-0 | 20 ppm<br>75 mg/m3 | 80 ppm<br>290 mg/m3 |                | SSC       |

- USA / AIHA WEEL (American Industrial Hygiene Association, Workplace Environmental Exposure Limit, 2010) :

| CAS     | TWA :   | STEL : | Ceiling : | Definition : | Criteria : |
|---------|---------|--------|-----------|--------------|------------|
| 71-41-0 | 100 ppm |        |           |              |            |

**8.2. Exposure controls****Personal protection measures, such as personal protective equipment**

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

**- Eye / face protection**

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

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**- Hand protection**

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

**- Body protection**

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Wear suitable protective clothing, in particular overalls and boots. These items must be kept in good condition and cleaned after use.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

**- Respiratory protection**

Avoid inhaling vapors.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A1 (Brown)

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties****Physical state**

Physical state : Fluid liquid.

**Colour**

Colour: Not stated.

**Odour**

Odour threshold : Not stated.

**Freezing point**

Freezing point / Freezing range : Not stated.

**Boiling point or initial boiling point and boiling range**

Boiling point/boiling range : Not relevant.

**Flammability**

Flammability (solid, gas) : Not stated.

**Lower and upper explosion limit**

Explosive properties, lower explosivity limit (%) Not stated.

:

Explosive properties, upper explosivity limit (%) Not stated.

:

**Flash point**

Flash Point Interval : 23°C <= FP <= 55°C

**Auto-ignition temperature**

Self-ignition temperature : Not relevant.

**Decomposition temperature**

Decomposition point/decomposition range : Not relevant.

**pH**

pH (aqueous solution) : Not stated.

pH : Not relevant.

**Kinematic viscosity**

Viscosity : Not stated.

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**Solubility**

Water solubility : Soluble.  
Fat solubility : Not stated.

**Partition coefficient n-octanol/water (log value)**

Partition coefficient: n-octanol/water : Not stated.

**Vapour pressure**

Vapour pressure (50°C) : Below 110 kPa (1.10 bar).

**Density and/or relative density**

Density : < 1

**Relative vapour density**

Vapour density : Not stated.

**Particle characteristics**

The mixture does not contain nanoforms.

**9.2. Other information**

No data available.

**9.2.1. Information with regard to physical hazard classes**

No data available.

**9.2.2. Other safety characteristics**

No data available.

**SECTION 10 : STABILITY AND REACTIVITY**

**10.1. Reactivity**

No data available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

**10.4. Conditions to avoid**

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- accumulation of electrostatic charges.
- heating
- heat
- flames and hot surfaces

**10.5. Incompatible materials**

Keep away from :

- combustible material
- strong oxidising agents
- reducing agents
- acids
- halogen compounds
- powdered metals (aluminium, magnesium, potassium, sodium and zinc)

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)

**SECTION 11 : TOXICOLOGICAL INFORMATION**

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

Harmful if swallowed.

Harmful by inhalation.

May cause irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis, following exposure for up to three minutes.

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Corrosive reactions are typified by ulcers, bleeding, bloody scabs, and, by the end of observation at 14 days, by discolouration due to blanching of the skin, complete areas of alopecia, and scars.

Respiratory tract irritation may occur, together with symptoms such as coughing, choking and breathing difficulties.

May cause an allergic reaction by skin contact.

Cause for concern owing to the possibility that it may induce heritable mutations in the germ cells of humans.

**11.1.1. Substances****Acute toxicity :**

|                                 |                                                   |
|---------------------------------|---------------------------------------------------|
| 1-PENTANOL (CAS: 71-41-0)       |                                                   |
| Oral route :                    | LD50 = 3645 mg/kg bodyweight/day<br>Species : Rat |
| Dermal route :                  | 2,000 < LD50 <= 5000 mg/kg<br>Species : Rat       |
| Inhalation route (Dusts/mist) : | LC50 = 1.5 mg/l<br>Duration of exposure : 4 h     |

**11.1.2. Mixture**

No toxicological data available for the mixture.

**11.2. Information on other hazards****SECTION 12 : ECOLOGICAL INFORMATION**

Very toxic to aquatic organisms.

The product must not be allowed to run into drains or waterways.

**12.1. Toxicity****12.1.1. Substances**

|                                |                                                                                            |
|--------------------------------|--------------------------------------------------------------------------------------------|
| 1-PENTANOL (CAS: 71-41-0)      |                                                                                            |
| Crustacean toxicity :          | EC50 = 342 mg/l<br>Species : Daphnia magna<br>Duration of exposure : 48 h                  |
| Algae toxicity :               | ECr50 = 72 mg/l<br>Species : Pseudokirchnerella subcapitata<br>Duration of exposure : 72 h |
| PENTYL NITRITE (CAS: 463-04-7) |                                                                                            |
| Crustacean toxicity :          | EC50 = 0.317 mg/l<br>Duration of exposure : 96 h                                           |
| Algae toxicity :               | ECr50 = 1 mg/l<br>Duration of exposure : 72 h                                              |

**12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

**12.2. Persistence and degradability****12.2.1. Substances**

|                                |                                        |
|--------------------------------|----------------------------------------|
| 1-PENTANOL (CAS: 71-41-0)      |                                        |
| Biodegradability :             | Rapidly degradable.<br>BOD5/COD = 0.97 |
| PENTYL NITRITE (CAS: 463-04-7) |                                        |
| Biodegradability :             | Rapidly degradable.                    |

**12.3. Bioaccumulative potential****12.3.1. Substances**

|                                       |                            |
|---------------------------------------|----------------------------|
| 1-PENTANOL (CAS: 71-41-0)             |                            |
| Octanol/water partition coefficient : | log K <sub>ow</sub> = 1.51 |



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Bioaccumulation :

BCF = 98

**12.4. Mobility in soil**

No data available.

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

No data available.

**12.6. Endocrine disrupting properties**

No data available.

**12.7. Other adverse effects**

No data available.

**German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :**

WGK 3 : Extremely hazardous for water.

**SECTION 13 : DISPOSAL CONSIDERATIONS**

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

**13.1. Waste treatment methods**

Do not pour into drains or waterways.

**Waste :**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

**Soiled packaging :**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

**SECTION 14 : TRANSPORT INFORMATION**

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2023 - IMDG 2022 [41-22] - ICAO/IATA 2024 [65]).

**14.1. UN number or ID number**

2920

**14.2. UN proper shipping name**

UN2920=CORROSIVE LIQUID, FLAMMABLE, N.O.S.

(pentyl nitrite, 1-pentanol)

**14.3. Transport hazard class(es)**

- Classification :



8+3

**14.4. Packing group**

II

**14.5. Environmental hazards**

- Environmentally hazardous material :

**14.6. Special precautions for user**

| ADR/RID | Class | Code    | Pack gr. | Label | Ident. | LQ      | Provis. | EQ               | Cat.        | Tunnel |
|---------|-------|---------|----------|-------|--------|---------|---------|------------------|-------------|--------|
|         | 8     | CF1     | II       | 8+3   | 83     | 1 L     | 274     | E2               | 2           | D/E    |
| IMDG    | Class | 2°Label | Pack gr. | LQ    | EMS    | Provis. | EQ      | Stowage Handling | Segregation |        |

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|  |   |   |    |     |          |     |    |                       |   |
|--|---|---|----|-----|----------|-----|----|-----------------------|---|
|  | 8 | 3 | II | 1 L | F-E. S-C | 274 | E2 | Category C<br>SW1 SW2 | - |
|--|---|---|----|-----|----------|-----|----|-----------------------|---|

| IATA | Class | 2°Label | Pack gr. | Passager | Passager | Cargo | Cargo | note | EQ |
|------|-------|---------|----------|----------|----------|-------|-------|------|----|
|      | 8     | 3       | II       | 851      | 1 L      | 855   | 30 L  | -    | E2 |
|      | 8     | 3       | II       | Y840     | 0.5 L    | -     | -     | -    | E2 |

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

Marine pollutant (IMDG 3.1.2.9):(pentyl nitrite)

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

No data available.

**SECTION 15 : REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Classification and labelling information included in section 2:**

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2022/692 (ATP 18)

**Container information:**

No data available.

**Restrictions applied under Title VIII of Regulation (EC) No. 1907/2006 (REACH):**

The mixture does not contain any substance restricted under Annex XVII of Regulation (EC) No. 1907/2006 (REACH):  
<https://echa.europa.eu/substances-restricted-under-reach>.

**Explosives precursors :**

The mixture does not contain any substance subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors.

**Particular provisions :**

No data available.

**German regulations concerning the classification of hazards for water (WGK, AwSV Annex I, KBws) :**

WGK 3 : Extremely hazardous for water.

**Swiss ordinance on the incentive tax on volatile organic compounds :**

71-41-0 pentane-1-ol (alcool pentylique)

**15.2. Chemical safety assessment**

No data available.

**SECTION 16 : OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

|      |                                          |
|------|------------------------------------------|
| H225 | Highly flammable liquid and vapour.      |
| H226 | Flammable liquid and vapour.             |
| H302 | Harmful if swallowed.                    |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation.                  |
| H317 | May cause an allergic skin reaction.     |
| H318 | Causes serious eye damage.               |
| H332 | Harmful if inhaled.                      |
| H335 | May cause respiratory irritation.        |
| H341 | Suspected of causing genetic defects .   |
| H400 | Very toxic to aquatic life.              |

**Abbreviations and acronyms :**

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

**PENTYL NITRITE N-PENTANOL MIXTURE**

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

ATE : Acute Toxicity Estimate

BW : Body Weight

CMR: Carcinogenic, mutagenic or reprotoxic.

UFI : Unique formulation identifier.

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS02 : Flame

GHS05 : Corrosion

GHS07 : Exclamation mark

GHS08 : Health hazard

GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.