1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Product name: LIQUIDE PROTECTION & HIVERNAGE PULVERISATEURS.
Product code: XPERT PROTECT+.
N/A.

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

1.3. Details of the supplier of the safety data sheet
Registered company name: Gopart ®.
Address: Gopart ® - PO Box 73, 7050 AB Varsseveld / NL.
Telephone: +31 (0)88 000 10 00.
Centre Anti-poison: +33 (0) 1 40 05 48 48

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

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).
This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.
Flammable (R 10).
This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).
This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements
In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms:

GHS02

Signal Word: WARNING.

Hazard statements:
H226 Flammable liquid and vapour.

Precautionary statements - General:
P102 Keep out of reach of children.

Precautionary statements - Prevention:
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

2.3. Other hazards
The mixture does not contain any substances classified as ‘Substances of Very High Concern’ (SVHC) by the European Chemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table.
The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.
3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances
Geen bestanddeel voldoet aan de criteria van bijlage II deel A van REACH-verordening (EG) nr. 1907/2006.

3.2. Mixtures

Composition:

<table>
<thead>
<tr>
<th>Identification</th>
<th>(EG) 1272/2008</th>
<th>67/548/EEC</th>
<th>Note</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEX: XPS063</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EG: 200-289-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLYCEROL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[1] 50 &lt;= x % &lt; 100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDEX: 603-002-00-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-17-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC: 200-578-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETHANOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GHS02</td>
<td>Dgr</td>
<td>E961; H225</td>
<td>F</td>
<td>F; R11</td>
</tr>
<tr>
<td>[1] 10 &lt;= x % &lt; 25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDEX: XPS059</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 57-55-6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC: 200-338-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MONO PROPYLENE GLYCOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[1] 2.5 &lt;= x % &lt; 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Information on ingredients:
[1] Substance for which maximum workplace exposure limits are available.

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:
N/A.
N/A.
N/A.

In the event of splashes or contact with eyes:
Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.
N/A.

In the event of splashes or contact with skin:
N/A.
N/A.
N/A.

In the event of swallowing:
In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.
Keep the person exposed at rest. Do not force vomiting.
Seek medical attention, showing the label.
If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

N/A.
N/A.
N/A.
N/A.

4.3. Indication of any immediate medical attention and special treatment needed
No data available.
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 (CO₂)

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)
• Carbon dioxide (CO₂)

N/A

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.

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 fire-fighters.
Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.
For fire-fighters.
Fire-fighters 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.

6.3. Methods and material for containment and cleaning up
Clean preferably with a detergent, do not use solvents.
N/A

6.4. Reference to other sections
N/A
N/A
7. HANDLING AND STORAGE

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

7.1. Precautions for safe handling

Always wash hands after handling.

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

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 earth during decanting operations. Wear antistatic shoes and clothing and floors should be electrically 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.

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.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep out of reach of children.

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

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.

Recommended types of packaging:

• Vats
• Drums

Suitable packaging materials:

• Polyethylene

7.3. Specific end use(s)

No data available.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

- **ACGIH TLV** (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):

<table>
<thead>
<tr>
<th>CAS</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
<th>Definition</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5</td>
<td>10 mg/m³</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>64-17-5</td>
<td>1.000 ppm</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

- **Germany - AGW** (BAuA - TRGS 900, 21-06-2010):

<table>
<thead>
<tr>
<th>CAS</th>
<th>VME</th>
<th>VME Overschrijding</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-17-5</td>
<td>500 ml/m³</td>
<td>960 mg/m³</td>
<td>DFG.Y</td>
</tr>
</tbody>
</table>

- **France (INRS - ED984: 2008)**

<table>
<thead>
<tr>
<th>CAS</th>
<th>VME ppm</th>
<th>VME mg/m³</th>
<th>VLE ppm</th>
<th>VLE mg/m³</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5</td>
<td>-</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>64-17-5</td>
<td>1.000</td>
<td>1.900</td>
<td>5.000</td>
<td>9.500</td>
<td>84</td>
</tr>
</tbody>
</table>

- **UK / WEL** (Workplace exposure limits, EH40/2005, 2007):

<table>
<thead>
<tr>
<th>CAS</th>
<th>TWA</th>
<th>STEL</th>
<th>Ceiling</th>
<th>Definition</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5</td>
<td>10 mg/m³</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>64-17-5</td>
<td>1.000 ppm</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>57-55-6</td>
<td>150 ppm</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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.

- **Eye / face protection**
  Avoid contact with eyes.
  Use eye protectors designed to protect against liquid splashes
  Before handling, wear safety goggles in accordance with standard EN166.

- **Hand protection**
  Wear suitable protective gloves in the event of prolonged or repeated skin contact.

- **Type of gloves recommended**
  Nitrile rubber (butadiene-acrylonitrile copolymer rubber [NBR])

- **Body protection**
  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**
  Type of FFP mask. Wear a disposable half-mask aerosol filter in accordance with standard EN149.
  Category: FFP1
  Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387: A1 (Brown).
9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information
Physical state: Fluid liquid.
N/A.
N/A.

Important health, safety and environmental information
pH: Not relevant.
Boiling point/boiling range: Not specified.
Flash Point Interval: 23°C ≤ PE ≤ 55°C.
Vapour pressure (50°C): Not relevant.
Density: > 1.
Water solubility: Soluble.
Melting point/melting range: Not specified.
Self-ignition temperature: Not specified.
Decomposition point/decomposition range: Not specified.

9.2. Other information
No data available.

10. STABILITY AND REACTIVITY

10.1. Reactivity
N/A.

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.
N/A.

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:
• Strong acids
• Strong oxidising agents

10.6. Hazardous decomposition products
The thermal decomposition may release/form:
• Carbon monoxide (CO)
• Carbon dioxide (CO₂)
11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Splashes in the eyes may cause irritation and reversible damage.

11.1.1. Substances

<table>
<thead>
<tr>
<th>Substance</th>
<th>Acute toxicity</th>
<th>Oral route</th>
<th>Species</th>
<th>Dermal route</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONO PROPYLENE GLYCOL</td>
<td>DL50 = 18.500 mg/kg</td>
<td>Rabbit</td>
<td>DL50 = 20.800 mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td>GLYCÉROL</td>
<td>DL50 = 12.600 mg/kg</td>
<td>Rat</td>
<td>DL50 &gt; 10.000 mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
</tbody>
</table>

11.1.2. Mixture
No toxicological data available for the mixture.

Monograph(s) from the IARC (International Agency for Research on Cancer):
CAS 64-17-5: IARC Group 1: The agent is carcinogenic to humans.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

<table>
<thead>
<tr>
<th>Substance</th>
<th>Fish toxicity</th>
<th>Species</th>
<th>Duration of exposure</th>
<th>Crustacean toxicity</th>
<th>Duration of exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONO PROPYLENE GLYCOL</td>
<td>LC50 &gt; 5000 mg/l</td>
<td>Carassius auratus</td>
<td>24 h</td>
<td>EC50 &gt; 10000 mg/l</td>
<td>48 h</td>
</tr>
<tr>
<td>GLYCÉROL</td>
<td>LC50 = 54000 mg/l</td>
<td>Salmo gairdneri</td>
<td>96 h</td>
<td>EC50 &gt; 10000 mg/l</td>
<td>24 h</td>
</tr>
</tbody>
</table>

12.1.2. Mixtures
No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONO PROPYLENE GLYCOL</td>
<td>No degradability data is available, the substance is considered as not degrading quickly</td>
</tr>
<tr>
<td>GLYCÉROL</td>
<td>Fast degrading</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>Chemical oxygen demand:</th>
<th>Five-day biochemical oxygen demand:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLYCÉROL</td>
<td>DCO = 1.16 g/g</td>
<td>DBO5 = 0.87 g/g</td>
</tr>
<tr>
<td></td>
<td>ISO 15705 (Determinantion of the chemical oxygen demand index (ST-COD) - Small-scale sealed-tube method)</td>
<td></td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
N/A

12.6. Other adverse effects
No data available.
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, preferably 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.

14. TRANSPORT INFORMATION


14.1. UN number
1993

14.2. UN proper shipping name
UN1993 = FLAMMABLE LIQUID, N.O.S. (ethanol)

14.3. Transport hazard class(es)
• Classification: 3

14.4. Packing group
III

14.5. Environmental hazards
-

14.6. Special precautions for user

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>Class</th>
<th>Code</th>
<th>Pack gr.</th>
<th>Label</th>
<th>Ident.</th>
<th>QL</th>
<th>Provis.</th>
<th>EQ</th>
<th>Cat.</th>
<th>Tunnel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>F1</td>
<td>III</td>
<td>3</td>
<td>30</td>
<td>5 L</td>
<td>274 601 640EE</td>
<td>E1</td>
<td>3</td>
<td>D/E</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMDG</th>
<th>Class</th>
<th>2°Label</th>
<th>Pack gr.</th>
<th>LQ</th>
<th>EMS</th>
<th>Provis.</th>
<th>EQ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>-</td>
<td>III</td>
<td>5 L</td>
<td>F-E,S-E</td>
<td>223 274 955</td>
<td>E1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IATA</th>
<th>Class</th>
<th>2°Label</th>
<th>Pack gr.</th>
<th>Passager</th>
<th>Passager</th>
<th>Cargo</th>
<th>Cargo</th>
<th>Note</th>
<th>EQ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>-</td>
<td>III</td>
<td>355</td>
<td>60 L</td>
<td>366</td>
<td>220 L</td>
<td>A3</td>
<td>E1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-</td>
<td>III</td>
<td>Y344</td>
<td>10 L</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>A3</td>
</tr>
</tbody>
</table>

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
No data available.
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:
    - Directive 1999/45/EC and its adaptations
    - Regulation EC 1272/2008 modified by regulation EC 286/2011

- Container information:
  - No data available.

- Particular provisions:
  - N/A.

15.2. Chemical safety assessment

No data available.

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.


Hazard symbols:
Flammable.

Risk phrase:
R 10 Flammable.

Safety phrase:
S 41 In case of fire and/or explosion do not breathe fumes.
S 2 Keep out of the reach of children.
S 16 Keep away from sources of ignition - No smoking.

Title for H, EUH and R indications mentioned in section 3:
H225 Highly flammable liquid and vapour.
R 11 Highly flammable.

Abbreviations:
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: Wassergefahrdungsklasse (Water Hazard Class).
GHS02: Flame.
United Kingdom of Great Britain and Northern Ireland
Regional Medicines and Poisons Information Centre NI
Pharmacy Department Belfast
+44 28 90 63 2032
844 892 0111

Country: UK
Company name: Kramp UK Ltd.
Address: Stratton Business Park, London Road, Biggleswade, GB-Bedfordshire SG18 8QB
General tel.nr.: 01767 602600
General fax nr.: 01767 602620
General e-mail: info.agri.uk@kramp.com