SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006/EC (REACH), as amended

Date of publication:6.10.2014Revision date:23.6.2015

COLLODIUM ÖAB

| <u>1.1 Product identifiers</u> | |
|--|--|
| Product name: | Collodium ÖAB |
| Index No: | |
| CAS No: | |
| EC (EINECS) No: | |
| Synonyms: | |
| Molecular weight: | |
| Formula: | |
| 1 ? Rolovant identified uses | of the substance or mixture and uses advised against: |
| | acture of substances, medicine |
| Laboratory chemicals, manuf | acture of substances, medicine |
| 1.3 Details of the supplier of | the safety data sheet. |
| <u>Distributor:</u> | Ing. Petr Švec - PENTA s.r.o. |
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| E-mail address: | info@pentachemicals.eu |
| E-man auur 055. | into e pentachemicals.eu |
| tel. +420 224 919 293; +420 | re, Na Bojišti 1, 128 08 Praha 2; 224 915 402, e-mail: tis@vfn.cz |
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Supplemental statements:

EUH019 May form explosive peroxides

EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P243 Take precautionary measures against static discharge.

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

2.3 Other hazards

None know.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>3.2 Mixtures</u>

| Name | Assay % | Index No | CAS-No | EC-No | Classification | Concentration |
|----------------------|---------|--------------|---------|-----------|---|---------------|
| Diethyl ether | ~66 | 603-022-00-4 | 60-29-7 | 200-467-2 | Flam. Liq.1; H224 Acute Tox.4; H302 STOT SE 3; H336 EUH019, EUH066 | - |
| Ethanol | ~30 | 603-002-00-5 | 64-17-5 | 200-578-6 | Flam. Liq.2; H225 | - |
| Cellulose nitrate | ~4 | - | 7 | 9004-70-0 | Flam. Liq.2; H225 | - |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AND MEASURES

4.1 Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician. *If swallowed:* Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

<u>4.3 Indication of immediate medici attention and special treatment needed</u> No information available.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguising media

Suitable extinguising media: carbon dioxide (CO₂), foam, dry powder *Unsuitable extinguising media:* for this substance no limitations of extinguishing agents are given

5.2 Special hazards arising from the substance or mixture

Combustible material. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air at ambient temperatures. Pay attention to flashback. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Special protective equipment for fire-fighters Wear self contained breathing apparatus for fire fighting if necessary.

Further information:

Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local/national regulations (see section 13).

6.4 Reference to other sections

For disposal see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. 8°C - 15°C. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end uses: no data available

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTIONS

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediatelly after handling the product.

Personal protective equipment

Eye/face protection: safety glasses or face shield

Skin protection: antistatic protective clothing

Hand protection: protective gloves (splash contact: Viton ®: thickness-0,7mm,break through time > 30 min;) *Respiratory protection:* respirator; recommended Filter type: Filter A for vapour of organic compounds *Environmental exposure controls:* do not empty into drals. Risk of explosion.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<u>Appearence</u> Form: Colour: Odour:

liquid colourless, at most slightly yellowish characteristic

| pH: | | | | |
|---|--|--|--|--|
| Melting point/freezing point (°C): | | | | |
| Boiling point (°C): | | | | |
| Flammability (solid, gas) | | | | |
| Flash point (°C): | | | | |
| Ignition temperature (°C): | | | | |
| Explosive limits: upper (% V): | | | | |
| lower (% V): | | | | |
| Vapour pressure: 20 °C, hPa | | | | |
| Relative density (20 °C): g/cm ³ | | | | |
| Water solubility (20 °C): | | | | |
| Partition coefficien: n-octanol/water: | | | | |
| Viscosity (20 °C): mPa.s | | | | |
| Explosive properties: | | | | |
| Oxidizing properties: | | | | |

no data available no data available no data available extremly flammable no data available no data available no data available no data available 0,765 - 0,775 g/cm³ Immiscible; miscible in ethanol, acetone no data available no data available

9.2 Other safety information:

The air in thin layer drying in a colorless tough leathery continuous layer.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity No data available. 10.2 Chemical stability The product is chemically stable under standard ambient conditions (room temperature). 10.3 Possibility of hazardous reactions No data available. 10.4 Conditions to avoid Heat, flames and sparks. Extremes of temperature and direct sunlight. 10.5 Incompatible materials Strong oxidizing agents, alkaline metals, inorganic acids. 10.6 Hazardous decomposition products Other decomposition products - carbon oxides, nitrogen oxides.

SECTION 11: TOXICOLOGIC INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

 LD_{50} , oral, rat (mg.kg⁻¹): 1 215 (*Diethyl ether*), 7 060 (*Ethanol*) LD_{50} , dermal, rabbit (mg.kg⁻¹): > 2 000 (*Diethyl ether*) LC_{50} , inhalation, rat (ppm): 31 000/30min (*Diethyl ether*)

Skin corrosion/irritation: skin irritation Serious eve damage/eve irritation: eve irritation Respiratory or skin sensitization: no data available Germ cell mutagenicity: no data available Carcinogenicity: no data available Reproductive toxicity: no data available Specific target organ toxicity - single exposure: may cause drowsiness and diziness Specific target organ toxicity - repeated exposure: is not classified as specific target organ toxicit, repeated exposure Aspiration hazard: no data available Potential health effects: Inhalation: may be harmful if inhaled. May causes respiratory tract irritation. Vapours may cause drowsiness and dizziness. *Skin:* may be harmful if absorbed through skin. May cause skin irritation. Eyes: causes serious eye irritation Ingestion: harmful if swallowed

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish: Toxicity to daphnia: Toxicity to algae:

h: LC₅₀, 96 hod.: 2 560 mg/l (*diethylether*), 8 140 mg/l (*ethanol*) bhnia: EC₅₀, 48 hod.: 165 mg/l (*diethylether*), 9 248 mg/l (*ethanol*) ae: IC₅₀, 72 hod.: 5 000 mg/l (*ethanol*)

12.2 Persistence and degradability: no data available

12.3 Bioaccumulative potential: no data available

12.4 Mobility in soil: no data available

12.5 Results of PBT and vPvB assessment: no data available

12.6 Other averse effects: do not allow to run into surface waters, wastewater, or oil

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

ADR/RID:

14.1 UN number: 1263
14.2 UN proper shipping name: PAINT (COLLODIUM ÖAB - contains diethyl ether, ethanol, cellulose nitrate)
14.3 Transport hazard class(es): 3
14.4 Packing group: II
14.5 Environmental hazards (EMS): F-E S-E
14.6 Special precautions for user: no data available

IMDG:

Marine pollutant: no *EMS:* F-E S-E

SECTION 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

Classification and labeling in accordance with these regulations:

REACH: Regulation of the European Parliament and Council Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended

CLP: Regulation of the European Parliament and Council Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures, as amended

15.2 Chemical Safety Assessment:

For this product a chemical safety assessment was not carried out.

SECTION 16: OTHER INFORMATION

Revision No.1: (23.6.2015) - the odd. 2, 3 and 16 discharges classification DSD (Dangerous Substances Directive (67/548 / EEC) - as amended by Regulation 2015/830; the odd. 1 change email addresses Poisons Information Centre;

Full text of H-statements referred to under sections2 and 3:

Flam. Liq. 1 (=Flammable liquids,category 1) Acute Tox. 4 (=Acute toxicity, category 4) STOT SE 3 (=Specific target organ toxicity-single exposure, category 3)

H224 Extremely flammable liquid and vapour.

H302 Harmful if swallowed.

H336 May cause drowsiness or dizziness.

EUH019 May form explosive peroxides.

EUH066 Repeated exposure may cause skin dryness or cracking.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. PENTA company shall not be held liable for any damage resulting from handling or from contact with the above product.