1. Identification of the substance/mixture and of the company/undertaking
   - **Product Identifier** – Nitrocellulose (Collodion) Solution
   - **Article Number** - 10800, 12050-12056, 53152, 53153

2. Hazards identification
   - **Classification of the substance or mixture**
   - **Classification according to Regulation (EC) No 1272/2008**

   \[
   \text{GHS02 flammable} \\
   \text{Resp. Sens. 1} \quad \text{H226} \quad \text{Flammable liquid and vapor}
   \]

   **Classification system:** According to Regulation (EC) No 1272/2008
   **Label elements**
   **Labelling according to EU guidelines:**

   **Pictogram**
   **Signal word:** Warning

   **Hazard statement(s):**
   H226 Flammable liquid and vapor
   H412 Harmful to aquatic life with long lasting effects

   **Precautionary statement(s):**
   P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
   P233 Keep container tightly closed.
   P240 Ground/bond container and receiving equipment.
   P241 Use explosion-proof electrical/ventilating/lighting equipment.
   P242 Use only non-sparking tools.
   P243 Take precautionary measures against static discharge.
Avoid release to the environment.

Wear protective gloves/ eye protection/ face protection.

IF ON SKIN (or hair): Immediately remove all contaminated clothing. Rinse skin with water/shower.

In case of fire: use dry sand, dry chemical or alcohol-resistant foam for extinction.

Store in a well-ventilated place. Keep cool.

Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered:
Repeated exposure may cause skin dryness or cracking.

3. Composition/information on ingredients

Chemical characterization: Mixtures

Description: Natural product.

Synonyms: Cellulose nitrate solution, collodion

Dangerous components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pentyl acetate</td>
<td>Flam. Liq. 3, Aquat. Chron. 3</td>
<td>&lt;=100%</td>
</tr>
</tbody>
</table>

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Additional information: For the wording of the listed risk phrases refer to section 16.

4. First aid measures

Description of first aid measures

General information:
Consult a physician. Show this SDS to the doctor in attendance.

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

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact:
Rinse opened eye for several minutes under running water. Then consult a doctor if irritation persists.

After swallowing:
Do NOT induce vomiting; call for medical help immediately.

Never give anything by mouth to an unconscious person. Rinse mouth with water.. Call for a doctor immediately.

Most important symptoms and effects, both acute and delayed
No further relevant information available.

Indication of any immediate medical attention and special treatment needed
No further relevant information available.
5. **Firefighting measures**
   - **Extinguishing media**
   - **Suitable extinguishing agents:**
     CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
   - **Special hazards arising from the substance or mixture.** Oxides of carbon and of nitrogen.
   - **Advice for firefighters**
   - **Protective equipment:** Wear self-contained breathing apparatus if necessary.

6. **Accidental release measures**
   - **Personal precautions, protective equipment and emergency procedures**
     Wear protective equipment. Keep unprotected persons away. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition.
   - **Environmental precautions:**
     Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
   - **Methods and material for containment and cleaning up:**
     Contain spillage and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in a container for disposal according to local regulations.
   - **Reference to other sections**
     See Section 7 for information on safe handling.
     See Section 8 for information on personal protection equipment.
     See Section 13 for disposal information.

7. **Handling and storage**
   - **Handling:**
     - **Precautions for safe handling**
       Avoid inhalation of vapor or mist.
       Keep away from sources of ignition. No Smoking. Take measures to prevent the build up of electrostatic charge.
     - **Information about fire and explosion protection:** Keep respiratory protective device available.
     - **Conditions for safe storage, including any incompatibilities**
     - **Storage:** Store in cool place.
     - **Requirements to be met by storerooms and receptacles:** Keep container lightly closed in a dry and well-ventilated place.
     - **Information about storage in one common storage facility:** Not required.
     - **Further information about storage conditions:** Containers which are opened must be carefully resealed and kept upright to prevent leakage.
     - **Special end use(s):** No further relevant information available.

8. **Exposure controls/personal protection**
   - **Control parameters**
   - **Exposure controls:**
Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at end of workday.

Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:
Protective gloves
The glove material has to be impermeable and resistant to the product, the substance, the preparation. Due to missing tests no recommendation to the glove material can be given for the product, the preparation, the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection
Tightly sealed goggles

Body Protection
Impervious clothing. Flame retardant antistatic protective clothing.

9. Physical and chemical properties
Information on basic physical and chemical properties

General information
Appearance:
Form: Fluid
Color: Clear
Odor: Characteristic fruity, banana-like
Odor threshold: 0.051 ppm for n-amyl acetate
pH value: Not determined

Change in condition
Melting point/Melting range: -95.8°F
Boiling point/Boiling range: 300.2°F
Flash point: 38°C
Flammability: Not applicable
Ignition temperature:
Decomposition temperature: Not determined
Self-igniting: Product is not self-igniting
Danger of explosion: Product does not present an explosion hazard
Explosion limits:
   Lower: Not determined
   Upper: Not determined

Vapor pressure at 20°C: 4 mmHg
Density at 20°C: 0.876 g/cm³
Relative density: Not determined
Vapor density: Not determined
Evaporation rate: 0.67 (butyl acetate = 1)

Solubility in/
   Miscibility with water: Fully miscible
Partition coefficient: Not determined
Viscosity:
   Dynamic: Not determined
   Kinematic: Not determined
Other information: No further relevant information available

10. Stability and reactivity
Reactivity: No further relevant information available.
Chemical stability: Stable under recommended storage conditions
Possibility of hazardous reactions: No further relevant information available.
Conditions to avoid: Heat, flames, sparks.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: No dangerous decomposition products known.

11. Toxicological information
Information on toxicological effects
Acute toxicity: No data available
Primary irritant effect:
   on the skin: No data available.
   on the eye: No data available.
Sensitization: No data available.
Carcinogenicity:
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Germ cell mutagenicity: No data available
Reproductive toxicity: No data available
Specific target organ toxicity – single exposure: No data available.
Specific target organ toxicity – repeated exposure: No data available.
Aspiration hazard: No data available.
Additional toxicological information: To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
12. **Ecological information**

**Toxicity:** No data available

**Aquatic toxicity:** No further relevant information available

**Persistence and degradability:** No further relevant information available

**Behavior in environmental systems:**

**Bioaccumulative potential:** No further relevant information available

**Mobility in soil:** No further relevant information available

**Results of PBT and vPvB assessment**

**PBT:** Not applicable

**vPvB:** Not applicable.

**Other adverse effects:** Harmful to aquatic life.

13. **Disposal considerations**

**Waste treatment methods**

**Recommendation**

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.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

14. **Transport information**

**UN-Number**

ADR, IMDG, IATA: UN2059

**UN proper shipping name**

ADR: NITROCELLULOSE SOLUTION, FLAMMABLE

IMDG: NITROCELLULOSE SOLUTION, FLAMMABLE

IATA: Nitrocellulose solution, Flammable

**Transport hazard class(es)**

ADR, IMDG

Class: 3, Flammable

IATA

Class: 3, Flammable

**Packing group**

ADR, IMDG, IATA: 3, Flammable

**Environmental hazards:**

**Marine pollutant:** No

**Special marking (ADR):** No
Special precautions for user: Warning: Flammable liquid

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

15. Regulatory information
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other Information
This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Contact
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Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the international Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent