

1 – Identification of mixture and Supplier

Product: - Nitrocellulose wetted with water
Use: - manufacture of powders, propellants and explosives
Supplier: - MANUCO
Address: - Boulevard Charles Garaud - B.P. 814 - 24108 BERGERAC CEDEX, FRANCE
Emergency phone: - 33 (0)1.45.42.59.59
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2 – Hazard identification***Classification*****Classification according to Regulation (EC) No 1272/2008:**

Flam. Sol. 1 H228 Flammable solid

Label elements**Signal word code:** Danger**Pictograms:** GHS02 :**Hazard statements:** Flam. Sol. H228**Precautionary Statement:**

P210 : Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P240 : Ground/bond container and receiving equipment.

P241 : Use explosion-proof electrical/ventilating/lighting/equipment if dust clouds can occur.

P280 : Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378 : In case of fire: Use water in huge amount for extinction.

3 – Composition and information on ingredients

	Nitrocellulose (cellulose nitrate) wetted with at least 25% water
Nitrocellulose content	60 – 75 %
Index Number	603-037-00-6
	Expl. 1.1, H201, EUH001

See section 16 for complete definition

4 – First aid measures

• **In case of inhalation** of fumes and vapors (nitrous vapors, irritating or toxic fumes) which can be released during an accidental decomposition of the product :

- Evacuate the victim into fresh air
- Keep the victim lying down and still.
- If breathing is difficult or irregular, give artificial respiration.
- Call a doctor immediately.

• **In case of contact:**

- Remove contaminated clothes and shoes.
- Wash skin, eyes and affected areas with abundant water during at least 10 minutes.
- Call a doctor

• **In case of ingestion:**

- If the victim is conscious, give large quantities of water.
- Never give anything by mouth to an unconscious person
- Do not induce vomiting
- Call a doctor.

5 – Fire Fighting measures

• **Extinguishing methods:**

- Only use abundant quantities of water
- Do not use carbon dioxide, foam, dry powder or sand.
- Extinguishing by suffocation is ineffective as nitrocellulose contains oxygen.

• **Protection of fire fighters**

- Wear protection equipment as indicated in Section 8 and a self-contained breathing apparatus.
- Protect from flame bursts and flying metal drum covers.
- In case of inhalation, proceed as indicated in Section 4.
- After extinction of fire, the material can remain unstable and there is a risk of auto-inflammation.
- Verify that residual material is completely wet.

6 – Accidental release measures**• Personal precautions:**

- No smoking.
- Avoid all sources of ignition or heat.
- Ensure adequate ventilation.
- Use suitable protective equipment / clothing (see Section 8).

• Precaution to protect the environment:

- Avoid contamination of drains, sewers, surface and underground water, soil and vegetation.

• Measures to contain and cleanup of spills:

- Wet with abundant water.
- Sweep up with care.
- Use tools recommended in Section 7.1
- Keep in closed watertight containers until disposal.
- For disposal, follow recommendations of Section 13.
- Call manufacturer if spill is significant.

7 – Handling and Storage**7.1- Handling:****• Technical measures and precautions:**

- No smoking.
- Handle packages containing Nitrocellulose with caution, avoiding falls, impacts and jerks. Do not roll drums.
- Keep away from flames and heat.
- Keep away from sparks, static electricity, impact or friction.
- Do not allow product to dry out.
- Keep container tightly closed when not in use
- Ensure adequate ventilation.
- If there is a plastic liner in the package, pull out with care over the side of the drum or box.
Only use tools made of non-ferrous materials like copper, brass, or wood.
- Do not use plastic tools which can produce static electricity
- Material in contact with nitrocellulose must not accumulate dust.

• Directions for use:

- Keep away from alkalis, amines, strong acids, or oxidizing agents which can produce dangerous reactions when in contact with nitrocellulose.
- Keep product quantity in process areas to the minimum required, not exceeding the amount needed for one shift

7.2- Storage:**• Storage conditions:**

- Storage must conform to local and all applicable regulations (for example in France: Note 1450 for classified installations: Easily Flammable solids).
- Store in cool and well-ventilated area.
- Keep away from heat, flames, direct sunlight and all sources of ignition.

• Technical measures:

- In process areas and workshops, do not keep more nitrocellulose than needed.
- Ensure adequate inventory rotation using "first-in first-out" policy.
- Use product within 12 months of manufacturing date (printed on boxes and drums).
- Check content of wetting agent (water) in unused packages regularly.
- Check wetting agent (water) is uniformly distributed inside the packages.
- Do not open or empty packages in storage area.
- Once a package has been opened, use entire content as quickly as possible.

• Incompatible materials:

- Do not store with alkalis, acids, amines or oxidizing agents.
- Do not store with inflammable liquids.

• Packing materials:

- Cardboard drums or boxes with antistatic liners are recommended.
- Approved metal drums (less safe than cardboard drums).

• Specific end use

No further relevant information available

8 – Exposure control / personal protection**8.1- Exposure limits:**

No Exposure limit

8-2 Personal protection

- Respiratory protection: Not required.
- Protection for hands: Antistatic gloves.
- Protection for eyes: Goggles with side shields or full face protection shield.
- Protection for skin: Flame retarding antistatic clothing (EN 531, EN 533, EN 1304, EN 1149) and protective antistatic shoes (EN 20345).

9 – Physical and chemical properties

- Appearance:	Solid pellets or fibres
- Colour:	White
- Odor:	none
- pH:	Not applicable
- Melting point:	Not determined
- Deflagration temperature:	≥ 180°C (according to MO.R.I.D.)
- Bulk density:	250 to 600 Kg/m ³ (at 20°C)
- Solubility:	<ul style="list-style-type: none">- Not soluble in water or hydrocarbons- Soluble in ketones, esters and alcohols.
- explosive property	explosive when dry

10 – Stability and reactivity

- Stability:	Stable under conditions of storage and handling described in Section 7.
- Conditions to avoid:	Do not let wetting agent evaporate (risk of inflammation / explosion) Avoid exposure to heat, shock, friction and impact.
- Materials to avoid:	Nitrocellulose decomposes when in contact with strong alkalis, acids, amines or oxidizing agents.
- Hazardous decomposition products:	CO, CO ₂ , Oxides of nitrogen (NO _x) and other potentially toxic fumes.

11 – Toxicological data

Contact with skin:	No effect
Contact with eyes	No effect
Ingestion:	No symptom of poisoning

12 – Ecological data

- **Acquatic toxicity:** No further relevant information available
- **Persistence and degradability:** No further relevant information available
- **Bio accumulative 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** No further relevant information available.

General notes: Do not allow product to reach ground water, water course or sewage system, even in small quantities.

13 – Disposal considerations**• Product disposal**

Product must be disposed in accordance with all applicable local, national and international regulations, including environmental regulations.

• Disposal of packaging**• Drums or boxes**

Packaging can contain hazardous residues. Follow all instructions on labels. Keep away from all sources of heat, sparks or flames.




Do not use welding or cutting tools on or near packaging.

Packaging cannot be considered non-hazardous waste unless absence of nitrocellulose is assured.

• Liner bags

Polyethylene liner bags must be separated and considered as hazardous waste for disposal purposes.

14 –Information on transportation

Land transport ADR/RID	Maritime transport IMDG	Air transport ICAO-TI and IATA-DGR
		
ADR/RID class: 4.1 (D) Flammable solids, self-reactive substances and solid desensitised explosives. Classification code: 4 UN Number: 2555 Packaging group: II Hazard label: 4.1 UN proper shipping name: 2555 NITROCELLULOSE WITH WATER Tunnel restriction code: B	IMDG Class: 4.1 UN Number: 2555 Label 4.1 Packaging group: II EMS Number: F-B S-J Marine pollutant: No Proper shipping name: NITROCELLULOSE WITH WATER	ICAO/IATA Class: 4.1 UN/ID Number: 2555 Label 4.1 Packaging group: II Proper shipping name: NITROCELLULOSE WITH WATER

UN "Model Regulation": UN2555, NITROCELLULOSE WITH WATER, 4.1, II

Warning: Flammable solids, self-reactive substances and solid desensitised explosives. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

15 –Regulatory Information :

Labelling according to European Regulation 1272/2008 – table 3.2

Chemical safety assessment: A Chemical Safety Assessment has not been carried out

16 – Other Information**Relevant phrases**

H228 Flammable solid

H201 Explosive; mass explosion hazard

EUH001 Explosive when dry

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulations Concerning the International Transport of Dangerous Goods by Rail

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

The Safety data sheet has been prepared in accordance to Title IV, art. 31 of the regulation CE 1907/2006 (REACH)

The information in this safety data sheet has been given in good faith, does not substitute use instructions.

The users' attention is drawn to the risks when the use of this product is different from the intended use of this product. In such a case, the user must, on its own responsibility :

- Take appropriate safety measures in the use of this product including those mentioned in this safety data sheet
- Transmit such safety information to all users and handlers of the product, including the risks and cautionary information about the use, storage and handling.

The regulatory recommendations are designed to help the recipient comply with their obligations when using this dangerous product. This information is not exhaustive. The recipient is responsible for the possession and use of this product

Manuco's technical services remain available to aid the users.

History

- First edition: 02/03/2005
- Previous revision date: 06/12/2013
- Review date: 02/06/15
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Revised chapter(s): 1, 2 and 16 according CLP regulation