



Moura, Silva & Filhos, S.A.
EXPLOSIVOS - PÓLVORAS - RASTILHOS

SAFETY DATA SHEET

in accordance with Reg. No. 1907/2006, as amended by Reg. 2020/878, of 18 June 2020

1.1 D Emulsions
Revision 2: 2022/12/06
[replaces revision 1, of 2020/05/15]
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Product: Class 1.1 D Emulsions – Explosives for Civil Use

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

1.1 Product identifier

Trade name: Gemulit Super 100, Gemulit Extra-Rouge and Precolit (Class 1.1 D Emulsions)

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

Identified uses: Civilian explosive for rock blasting.

Not recommended: Any other use is not recommended.

1.3 Details of the supplier of the safety data sheet

Moura, Silva & Filhos, S.A.

Rua do Marco, 448

4830-741 Taíde (Póvoa de Lanhoso)

Portugal

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1.4 Emergency telephone number

CIAV – Poison Information Center: + 351 800 250 250

Assistance services: <https://echa.europa.eu/support/helpdesks>

2. Hazards identification

2.1 Classification of the substance or mixture

According to Regulation (EC) 1272/2008 of 16 December:

Hazard class and category:

Explosive, Division 1.1 (Expl. 1.1)

H201: Explosive; danger of mass explosion.

Serious eye damage, category 1 (Eye Dam. 1)

H318: Causes serious eye damage.

2.2 Label elements

According to Regulation (EC) 1272/2008 of 16 December:

Hazard Pictogram:



(GHS01)

Precautionary recommendations:

Prevention:

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

P234: Always keep the product in its original packaging.

P250: Do not be crushed, shocked or rubbed.

P280: Wear protective gloves (chemical resistant) and protective clothing.

Answer:

P370 + P372 + P380 + P373: In case of fire: risk of explosion. Evacuate the area. If the fire reaches the explosives, DO NOT try to fight it.

Elimination:

P501: Dispose of the contents/container in accordance with national regulations (Decreto-Lei No. 139/2002 of 17 May, as amended by Decreto-Lei No. 87/2005 of 23 May).

Signal Word: Danger

Hazard statements:

H201: Explosive; danger of mass explosion.

2.3 Other hazards

None of the substances present in the mixture in a concentration equal to or greater than 0.1% by mass fulfils the criteria for Persistent, Bioaccumulative and Toxic Substances or Very Persistent and Very Bioaccumulative substances in accordance with Annex XIII to Regulation 1907/2006, as amended. None of the substances present in the mixture at a concentration of 0.1% or more by weight have endocrine-disrupting properties.

When burning/detonating, it produces nitrogen dioxide (NO₂) and carbon dioxide (CO₂). Combustion/detonation under low oxygen conditions may also lead to the formation of other air contaminants such as nitrogen monoxide (NO) and carbon monoxide (CO).



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3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL DESIGNATION	% (w/w)	CAS No.	EC No.	REACH REGISTRATION NUMBER	Regulation (EC) No 1272/2008	
					HAZARD CLASS	WARNINGS
Ammonium Nitrate in solution	60 - 80	6484-52-2	229-347-8	01-2119490981-27-xxxx	Oxidizing liquid, category 3 (Ox. Liq. 3); Eye Irritation, Category 2	H272; H319
Calcium ammonium nitrate	10-16	15245-12-2	239-289-5	01-2119493947-16-xxxx	Acute toxicity (oral), category 4 (Acute Tox. 4 Oral); Serious eye damage, category 1 (Eye Dam. 1)	H302; H318
White mineral oil (petroleum) [paraffinic oil]	1-3	8042-47-5	232-455-8	01-2119487078-27-xxxx	Aspiration toxicity: category 1 (Asp. Tox. 1)	H304

Note: The remaining components of the mixture do not meet the criteria for classification.
(See full text of the hazard statements in section 16)

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact: Rinse the eyes with running water for at least 15 minutes, keeping the eyelids open. If you wear contact lenses, remove them before washing your eyes. Contact your doctor immediately.

Skin contact: Remove contaminated clothing carefully so as not to contaminate the eyes. Start immediate skin decontamination by washing with mild soap and water. Consult your doctor in case of skin irritation.

Ingestion: Oral exposure is quite unlikely. Do not induce vomiting. If the victim is conscious, rinse his mouth with water. If the victim is unconscious, convulsive or has difficulty swallowing, never induce vomiting or give them fluids. Seek medical assistance by showing this Safety Data Sheet.

Inhalation: In case of inhalation of gases resulting from the thermal decomposition of the product, its combustion, or detonation, remove the victim from the contaminated area, move him to a clean air zone and keep him at rest. Consult your doctor if you have any symptoms.

In case of injury caused by the detonation of the product, provide immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Product exposure: Eye injury/irritation.

Exposure to thermal decomposition, combustion or detonation gases: Methemoglobinaemia, pulmonary oedema, skin irritation and irritation of the eyes, mouth, throat and other affected tissues.

4.3 Indication of any immediate medical attention and special treatment needed

Inhalation of gases from a fire, thermal decomposition of the product or detonation can cause irritation and harmful effects on the respiratory system. Administer oxygen (if a competent practitioner is present), especially if the area around the mouth is bluish (methemoglobinaemia). After exposure to toxic gases, the victim should remain under medical supervision for at least 48 hours to prevent the possible occurrence of pulmonary edema.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

If the fire reaches the explosives, DO NOT attempt to fight it as there is a risk of mass explosion.

5.2 Special hazards arising from the substance or mixture

When burning/detonating, it produces nitrogen dioxide (NO₂) and carbon dioxide (CO₂). Combustion/detonation under low oxygen conditions can also lead to the formation of other hazardous gases, such as nitrogen monoxide (NO) and carbon monoxide (CO).

5.3 Advice for firefighters

Prevent the fire from reaching the containers by flooding the area with large amounts of water.

If there is time, remove the containers to a safe area.

Cool containers and exposed structures with water spray. Risk of mass explosion in the event of a fire.

To fight fires that could potentially involve this product, but that have not yet reached the containers, self-breathing equipment and a full chemical protection suit should be used.

In the event of a fire: evacuate the area. Do not fight fires involving explosive material. Do not fight fires involving containers of these products. Remove yourself from the area and let the fire burn. Get everyone in the vicinity out of the fire. Alert the authorities.



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6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

In the event of a spill, remove ignition sources. Keeping unauthorized personnel out of the enclosure. Avoid contact with eyes, skin and clothing. Wear hand, foot and body protection equipment. (see paragraph 8)

6.2 Environmental precautions

Prevent the product from reaching the soil or water environment.

6.3 Methods and material for containment and cleaning up

Wearing gloves, collect the product into a clean and properly identified container. Do not use electric discharge or sparking tools. Use wooden or aluminum tools, for example. The detonation or neutralization of the spilled product must be carried out by competent authorities or technicians.

6.4 Reference to other sections

The control measures provided for in point 8 shall be taken.

Waste and materials contaminated with the product shall be treated as explosive waste in accordance with section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Technical recommendations: Do not use electric discharge or sparking tools.

Always wear protective equipment for your hands, feet and body.

Before loading, the loading surface of the vehicle or container must be thoroughly cleaned. [CV2(1), paragraph 7.5.11 of the ADR]

It is forbidden to smoke, use fire or naked flame in vehicles carrying explosives, either in the vicinity of them or during loading and unloading.

The smoking ban also applies to the use of e-cigarettes and similar devices. [S1 (3), item 8.5 of the ADR]

Do not subject the product to shock or friction. Do not open the packages during transport.

Avoid exposure to gases resulting from thermal decomposition of the product, its combustion, or detonation.

Promote adequate ventilation of explosive detonation sites.

General hygiene recommendations in the workplace: Do not eat, drink or smoke in work areas. Remove contaminated clothing and protective equipment after handling the product. Wash your hands before breaks and after work. Do not handle the explosive under the influence of alcohol or drugs.

7.2 Conditions for safe storage, including any incompatibilities

Recommendations: Store packages in a cool, dry and well-ventilated place.

Keep the packages closed. Avoid exposure to heat and direct sunlight. Do not allow the product to come into contact with oxidizable materials.

Incompatible products and materials: strong acids and bases, flammable or combustible products, oxidizers and primary explosives.

The storage of explosives is subject to specific legislation (Decreto-Lei No. 139/2002, of 17 May, amended by Decreto-Lei No. 87/2005, of 23 May). It should only be stored with materials from the same compatibility group.

7.3 Specific end uses

Civilian explosive for rock blasting.

Follow the recommendations set out in subsections 7.1 and 7.2.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

8.1 Control parameters

No occupational or biological exposure limit values have been defined for any of the substances in the mixture.

However, during the detonation of the explosive, air contaminants subject to occupational exposure limit values are formed. These contaminants should be considered when using explosive emulsions in confined environments, such as underground mining and tunneling, galleries and caves. The occupational exposure limit values are as follows:

Substance	National limit value until 21/08/2023		National ceiling value as of 22/08/2023		Legal basis
	8 hours	Short-term	8 hours	Short-term	
Azote monoxide	30 mg/m ³ 25 ppm	- -	2,5 mg/m ³ 2 ppm	- -	Decreto-Lei No 24/2012, as amended (Directive 98/24/EC, Directive (EU) 2017/164, Directive (EU) 2019/1831);
Azote dioxide	0.2 ppm*	-	0.96 mg/m ³ 0,5 ppm	1,91 mg/m ³ 1 ppm	
Carbon monoxide	25 ppm*	-	23 mg/m ³ 20 ppm	117 mg/m ³ 100 ppm	
Carbon dioxide	9000 mg/m ³ 5000 ppm	-	9000 mg/m ³ 5000 ppm	-	* NP 1796:2014



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8.2 Exposure control

8.2.1 Appropriate roadworthiness checks

Regarding exposure to the product, there is no additional information to that provided in section 7.

With regard to the control of air contaminants generated during explosive detonation, adequate ventilation should be ensured when detonation takes place in confined environments, such as underground mining and tunneling. The concentration of air contaminants should be assessed in order to define the necessary technical measures, which may include efficient ventilation, increased work interruption times for ventilation, control of exposure times, among others.

8.2.2 Personal protective measures, including personal protective equipment

Eye/face protection:	No eye or face protection is required under normal conditions of use and good ventilation.
Skin protection:	Wear protective clothing; wear PVC or PVA gloves; Wear protective footwear.
Respiratory protection:	No respiratory protection is required when handling the explosive. After detonation in an underground environment, depending on the technical measures adopted (ventilation, waiting times, or others) and the results of the monitoring of air contaminants, it may be necessary to wear a protective mask with a filter for nitrogen monoxide, nitrogen dioxide and/or carbon monoxide (EN 14387 standard).



8.2.3 Environmental exposure control

Prevent the product from reaching the water environment. Do not leave any residue of the product at the site of application.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Physical condition:	Solid (pasty)
b) Colour:	Gemulit Super 100 and Precolit: Beige; Gemulit Extra-Rouge: Reddish
c) Odor:	Odorless
d) Melting point/freezing point:	Not determined/Not applicable
e) Boiling point:	Not determined/Not applicable
f) Flammability:	Not determined/Not applicable
g) Upper and lower explosive limit:	Not applicable to solids
h) Flash point:	Not applicable to solids
i) Auto-ignition temperature:	Not applicable to solids
j) Decomposition temperature:	Not applicable
k) pH:	± 5
l) Kinematic viscosity:	Not applicable to solids
m) Solubility:	Not soluble in water
n) n-octanol/water partition coefficient:	Not applicable to mixing
o) Vapor pressure:	Not applicable (solid mixture)
p) Density and/or relative density:	Density (specific mass): 1100 - 1250 kg/m ³ (1,10 – 1,25 g/cm ³)
q) Relative vapour density:	Not applicable to solids
r) Characteristics of the particles:	Not applicable (pasty solid)

9.2 Other information

Explosive 1.1 D;
Impact sensitivity (EN 13631-4): ≥ 140 J;
Friction sensitivity (EN 13631-3): ≥ 360 N;
Thermal stability (EN 13631-2): Not reacted at 75 °C (348,15 K) for 48 h



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10. STABILITY AND REACTIVITY

10.1 Reactivity

Explosive product. The mixture is not reactive under the recommended conditions for handling, transport and storage (see section 7). The product reacts if it is mixed with strong acids or bases, flammable or combustible products, oxidizers and primary explosives.

10.2 Chemical stability

The mixture is stable under normal ambient conditions and at the foreseeable temperature and pressure conditions during handling, transport and storage (see section 7). No change in the physical appearance of the mixture is expected within its shelf life (3 years).

10.3 Possibility of hazardous reactions

Possibility of dangerous reactions in contact with incompatible materials or under the conditions described in subsection 10.4. The product reacts if it is mixed with primary explosives, causing an explosion. Risk of explosion from shock, fire and other sources of ignition.

10.4 Conditions to avoid

Temperature: Avoid exposure to or contact with extreme temperatures [below 263,15 K (-10 °C) and above 348,15 K (+75 °C)].
Pressures: Avoid exposure to high pressures.
Shock: Avoid collisions.
Friction: Avoid product friction.
Ignition: Avoid sources of ignition (flame, sparks, or others).

Note: Low temperatures are not a danger factor in terms of stability and reactivity, they only condition the performance of the product.

10.5 Incompatible materials

Strong acids, strong bases, flammable products, organic peroxides, oxidizers and primary explosives.

10.6 Hazardous decomposition products

Thermal decomposition, combustion and detonation produce hazardous gases such as nitrogen oxides (NO_x), carbon monoxide (CO) and carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

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

- a) Acute toxicity: Based on the available data, the classification criteria are not met.
- b) Skin corrosion/irritation: Based on the available data, the classification criteria are not met.
- c) Serious eye damage/Eye irritation: Classified mixture - Serious eye damage, Category 1 (Eye Dam. 1); H318: Causes serious eye damage.
- d) Respiratory or skin sensitization: Based on the available data, the classification criteria are not met.
- e) Germ cell mutagenicity: Based on the available data, the classification criteria are not met.
- f) Carcinogenicity: Based on the available data, the classification criteria are not met.
- g) Reproductive toxicity: Based on the available data, the classification criteria are not met.
- h) Specific Target Organ Toxicity (STOT) - single exposure: Based on the available data, the classification criteria are not met.
- i) Specific Target Organ Toxicity (STOT) - repeated exposure: Based on the available data, the classification criteria are not met.
- j) Aspiration hazard: On the basis of the available data, the classification criteria are not met.

11.2 Information on other hazards

None of the substances present in the mixture at a concentration of 0,1% or more by weight have endocrine-disrupting properties.
Other information: No information on other adverse health effects is available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data are available on the toxicity of the mixture.

12.2 Persistence and degradability

For the constituent ammonium nitrate [according to the supplier's SDS]:

Persistence: Decomposition by hydrolysis.

Degradability: The methods for determination biological degradability are not applicable to inorganic substances.



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For the constituent calcium ammonium nitrate:
High biodegradability study not required because the substance is inorganic (Annex VII of REACH).

12.3 Bioaccumulative potential

For the constituent ammonium nitrate [according to the supplier's SDS]: Bioaccumulation is unlikely.

For the constituent calcium ammonium nitrate [according to the supplier's SDS]:
Bioaccumulation is not expected. $\log Pow < 1$.

12.4 Mobility in soil

For the constituent ammonium nitrate [according to the supplier's SDS]:
Adsorption into the soil is not expected.

For the constituent calcium ammonium nitrate [according to the supplier's SDS]:
Mobile in the environment (very soluble in water).

12.5 Results of PBT and vPvB assessment

The PBT and vPvB evaluation of the mixture was not performed.

For the constituent ammonium nitrate [according to supplier's SDS]: The PBT or vPvB criteria of Annex III to the REACH Regulation do not apply to inorganic substances.

For the constituent calcium ammonium nitrate [according to supplier's SDS]: The PBT and vPvB assessment does not apply to inorganic substances.

12.6 Endocrine disrupting properties

None of the substances present in the mixture at a concentration of 0,1% or more by weight have endocrine-disrupting properties.

12.7 Other adverse effects

No other adverse effects are known.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Explosive waste and contaminated packaging are disposed of by combustion, detonation, or chemically, using small fractions in each operation, under the terms of Decreto-Lei No. 139/2002 of 17 May, as amended by Decreto-Lei No. 87/2005 of 23 May.
The disposal of explosive products is carried out under the guidance of the on-site technical manager.

Note: In accordance with paragraph e) of paragraph 2 of article 2 of the General Waste Management Regime, approved by Decreto-Lei No. 102-D/2020, of 10 December, as amended, explosives are excluded from the scope of this regime.

Do not leave waste or discharge it into collectors or the water environment.

14. TRANSPORT INFORMATION

14.1 UN number or ID number: UN 0241

14.2 UN proper shipping name: TYPE E BLASTING EXPLOSIVE

14.3 Transport hazard classes

ADR / RID / ADN (via road/rail/inland waterways):	1.1D
IMDG (By Sea)	1.1D



Tunnel Restriction Code [ADR]: B1000C

14.4 Packing group: Not applicable

14.5 Environmental hazards: The mixture is not hazardous to the environment in the light of the criteria of the UN Model Regulations (as referred to in the ADR, the RID and the DNA) and is not a marine pollutant in accordance with the IMDG code.

14.6 Special precautions for user: Not applicable.

14.7 Maritime transport in bulk according to IMO instruments: Not applicable.

15. REGULATORY INFORMATION

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

Seveso hazard category (Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012; Decreto-Lei No. 150/2015 of 5 August): P1a Explosives (Lower level requirements: 10 t; Higher level requirements: 50 t)



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Mixture not covered by the Regulations:

- Regulation (EC) No 1005/2009 of 16 September 2009 on substances that deplete the ozone layer;
- Regulation (EC) No 850/2004 of 29 April 2004 on persistent organic pollutants;
- Regulation (EU) No. 649/2012 of 4 July 2012 on the export and import of hazardous chemicals.

15.2 Chemical safety assessment

An assessment of the chemical safety of the mixture has not been carried out.

16. OTHER INFORMATION

Safety Data Sheet review:

This revision replaces revision 1, dated 2020/05/15, effective 2022/12/06.

Changes introduced:

General: adequacy of the designation of sections and sub-sections to Regulation (EU) 2020/878 of 18 June 2020; updating of applicable legal references;

Sub-section 2.3 - Introduction of information on endocrine disrupting properties;

Section 3 - Adjustment of the concentration ranges of some components of the mixture;

Section 9 - Reorganization and updating of information on the physical and chemical properties of the mixture;

Section 11: Introduction of sub-section 11.2 - Information on other hazards;

Section 12: Introduction of sub-section 12.6 - Endocrine disrupting properties;

Section 16 - Introduction of the abbreviations CLP, ECHA, IMO/IMO, ID Number, PVA, Pow, PVC, REACH, SOLAS and UNEC in the caption; updating of bibliographic references; introduction of recommendations on training.

Subtitles:

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road

CLP - Classification, Labelling and Packaging

ECHA - European Chemicals Agency

SDS - Safety Data Sheet

IMDG - International Maritime Dangerous Goods

IMO - International Maritime Organization

ELW - European List of Waste

MEMU - Mobile Explosives Manufacturing Unit

vPvB - Very Persistent and Very Bioaccumulative Substances

ID Number - Identification number of the substance, mixture or article

IMO - International Maritime Organization

UN - United Nations

PBT - Persistent, Bioaccumulative and Toxic Substances

Pow - Octanol/Water Partition Coefficient

PSP - Public Security Police

PVA - Poliacetato de vinilo

PVC - Policloreto de vinilo

REACH - Registration, Evaluation and Authorization of Chemicals

RID - International Rail Transport of Dangerous Goods

RTMP - Recommendations on the Transport of Dangerous Goods (from the UN)

SOLAS - International Convention for the Safety of Life at Sea

UNEC - United Nations Economic Commission for Europe

Bibliographic references:

Regulation (EC) No 1907/2006 of 18 December 2006 (REACH), as amended (version as of 2022/10/14)

Regulation (EC) No 1272/2008 of 16 December 2008 (CLP), as amended (version as of 2022/03/01)

Regulation (EU) 2020/878 of 18 June 2020

Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012

Regulation (EU) 2019/1148 of 20 June 2019 (explosives precursors)

Council Directive 80/181/EEC of 20 December 1979, as amended

Commission Decision 2014/955/EU of 18 December 2014

Decreto-Lei no. 62/2021, of 26 July (precursors of explosives)

Decreto-Lei No. 139/2002, of 17 May, amended by Decreto-Lei No. 87/2005, of 23 May

Decreto-Lei no. 102-D/2020, of 10 December, as amended (version as of 2021/08/10)

Decreto-Lei No. 82/2003 of 23 April, amended by Decreto-Lei No. 63/2008 of 2 April and by Decreto-Lei No. 155/2013 of 5 November

Decreto-Lei No. 98/2010 of 11 August

Decreto-Lei No. 150/2015 of 5 August

Decreto-Lei No. 293/2009 of 13 October

Decreto-Lei no. 41-A/2010, of 29 April, as amended (version as of 2021/11/17)

Ordinance no. 309-A/2021, of 17 December (land transport of dangerous goods)

Decreto-Lei no. 24/2012 of 6 February, as amended (version as of 2021/01/06)

ADR 2021 - Agreement on the International Carriage of Dangerous Goods by Road, May 2021, Tutorial - Conteúdos e Tecnologia, Lda.



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IMDG Code 2020 - International Maritime Dangerous Goods Code

Safety data sheets for the substances in the mixture (provided by the respective suppliers)

Manual of Intervention in Emergencies with Chemical, Biological and Radiological Hazardous Materials, Autoridade Nacional de Proteção Civil, June 2011, ISBN: 978-989-8343-08-6.

ECHA website: <https://echa.europa.eu/information-on-chemicals>

REACH & CLP national website: <http://www.reachhelpdesk.pt>

UNECE website: <https://www.unece.org>

Mixture classification method:

Physical hazards: Test Series 1 to 8 of Part 1 of the UN RTMP (Recommendations on the Transport of Dangerous Goods), Manual of Tests and Criteria;

Hazards to health and the environment: Based on the classification data of the components of the mixture, applying the criteria set out in Parts 3 and 4 of Annex I to CLP.

List of relevant hazard statements and precautionary statements:

H201: Explosive; danger of mass explosion.

H272: May aggravate fire; oxidizing.

H302: Harmful if swallowed.

H304: May be deadly by ingestion and penetration into the respiratory tract.

H318: Causes serious eye damage.

H319: Causes severe eye irritation.

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

P234: Always keep the product in its original packaging.

P250: Do not be crushed, shocked or rubbed.

P280: Wear protective gloves (chemical resistant) and protective clothing.

P370+P372+P380+P373: In case of fire: risk of explosion. Evacuate the area. If the fire reaches the explosives, DO NOT try to fight it.

P501: Dispose of the contents and container in accordance with national regulations (Decreto-Lei No. 139/2002 of 17 May, as amended by Decreto-Lei No. 87/2005 of 23 May).

Other relevant precautionary recommendations applicable to the mixture, but not included on the label by imposition of the principles of precedence (Article 28 of Regulation (EC) No 1272/2008):

P401: Store in accordance with national regulations (Decreto-Lei No. 139/2002 of 17 May, amended by Decreto-Lei No. 87/2005 of 23 May).

Precautionary statements associated with other hazard classes of the mixture (other than "Explosive"):

P310: Contact a doctor immediately (Note: in case of contact with eyes)

P305+P351+P338: IF IN EYES: rinse thoroughly with water for several minutes. If you wear contact lenses, remove them if possible. Continue rinsing.

Training recommendations: Regular training should be provided to workers on the basis of the information contained in this safety data sheet and the specific conditions of use of the mixture, to ensure the protection of workers' health and the environment.