N-Powder High Energy, N500-series (IP)
N515, N526, N530, N540,N545, N550, N555, N560, N565, N568, N570

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: N-Powder High Energy, N500-series (IP)
N515, N526, N530, N540,N545, N550, N555, N560, N565, N568, N570

Other means of identification:

Not relevant

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

Relevant uses (Professional users):
- Manufacturing and use of explosives
Relevant uses (Industrial user):
- Manufacturing and use of explosives
For Professional users/Industrial user only.

Uses advised against:
- All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

Nammo Vihtavuori Oy
Ruutitehtaantie 80
41330 Vihtavuori - Finland
Phone: +358 10 523 3140
info@vihtavuori.com
www.nammo.com

1.4 Emergency telephone number: Emergency telephone number Europe: 112

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Acute Tox. 3: Acute toxicity, Category 3, H301+H311
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
Expl. 1.3: Explosives, Category 1.3, H203
STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2, H373

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger

Hazard statements:

Acute Tox. 3: H301+H311 - Toxic if swallowed or in contact with skin.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Expl. 1.3: H203 - Explosive, fire, blast or projection hazard.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240: Ground and bond container and receiving equipment.
P250: Do not subject to grinding/shock/friction.
P280: Wear protective gloves/protective clothing/respiratory protection/eye protection.
P370+P372+P380+P373: In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.
P373: DO NOT fight fire when fire reaches explosives.
P401: Store in accordance with specifications.
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Additional labeling:

- CONTINUED ON NEXT PAGE -

SECTION 2: HAZARDS IDENTIFICATION (continued)

The packages have been marked in accordance with derogation 1.3.5 of Annex I.

2.3 Other hazards:

Product does not meet PBT/vPvB criteria
Endocrine-disrupting properties: The product does not meet the criteria.
Can form an explosive dust-air mixture when dispersed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Not relevant

3.2 Mixture:

Chemical description: Mixture of substances

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 9004-70-0 EC: 682-719-5 Index: 603-037-00-6 REACH: Not relevant	**Cellulose nitrate**[1]	Self-classified	**80 - <99%**
	Regulation 1272/2008	Expl. 1.3: H203 - Danger	
CAS: 55-63-0 EC: 200-240-8 Index: 603-034-01-7 REACH: 01-2119488893-18-XXXX	**Nitroglycerin**[2]	Self-classified	**3 - <20%**
	Regulation 1272/2008	Acute Tox. 1: H310; Acute Tox. 2: H300+H330; Aquatic Chronic 2: H411; Expl. 1.1: H201; STOT RE 2: H373 - Danger	
CAS: 13114-72-2 EC: 236-039-7 Index: Not relevant REACH: 01-2120751244-60-XXXX	**3-methyl-1,1-diphenylurea**[2]	Self-classified	**1 - <3%**
	Regulation 1272/2008	Acute Tox. 4: H302; Aquatic Chronic 3: H412; STOT RE 2: H373 - Warning	

[1] Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878
[2] Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
Nitroglycerin CAS: 55-63-0 EC: 200-240-8	LD50 oral	5 mg/kg	
	LD50 dermal	5 mg/kg	
	LC50 inhalation dust	0,05 mg/L *	
3-methyl-1,1-diphenylurea CAS: 13114-72-2 EC: 236-039-7	LD50 oral	500 mg/kg	
	LD50 dermal	Not relevant	
	LC50 inhalation dust	Not relevant	

*Equivalent ATE value of the substance applicable to the exposure route of the product. For the ATE value associated with the exposure route of the substance, see section 11.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

- CONTINUED ON NEXT PAGE -

SECTION 4: FIRST AID MEASURES (continued)

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Induce vomiting (ONLY IF PERSON IS CONSCIOUS!) and then ingest large quantities of liquid to dilute the toxin. Keep the person affected at rest.

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

Acute and delayed effects are indicated in sections 2 and 11.

The product's combustion gases contain nitrogen oxides (NOx), the effects of which may not begin until several hours after exposure. Patients who have inhaled flammable gases should be monitored for at least 48 hours after exposure.

4.3 Indication of any immediate medical attention and special treatment needed:

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Foam extinguisher (AB), Dry Chemical Powder (ABC) Fire Extinguisher, Carbon dioxide extinguisher (BC), Water extinguisher Class (A)

Unsuitable extinguishing media:

Water jet

5.2 Special hazards arising from the substance or mixture:

WARNING! Explosive, fire, blast or projection hazard. In case of fire follow the instructions on the Internal Emergency Plan

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EEC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.
Burns without external oxygen. The combustion of gunpowder is flammable and can turn into an explosion. If a fire threatens to spread to an area with gunpowder, the area must be evacuated to a safe distance and focus on preventing the fire from spreading.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Sweep up and shovel product or collect by other means and place in container for disposal.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

Other information:

- CONTINUED ON NEXT PAGE -

SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

Collect leaking product in containers for disposal. Use non-sparking tools and prevent the formation of static electricity. Eliminate all ignition sources.
ATTENTION: Never use damaged or spilled explosives!

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

Other information:

Collect product in containers regarding precautions and dispose of.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Sweep up and shovel product or collect by other means and place in container for disposal.

Other information:

ATTENTION: Never use damaged or spilled explosives!

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Due to its non-inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Given the environmental hazard of the product, it is advisable to use cleaning methods that minimize its dispersion into the surround

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Other information:

Store in a locked, dry and cool place, in the original packaging. Do not store together with acids and bases.

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Directive (EU) 2000/39, Directive 2004/37/EC,Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
Nitroglycerin (1)	IOELV (8h)	0,01 ppm	0,095 mg/m³
CAS: 55-63-0 EC: 200-240-8	IOELV (STEL)	0,02 ppm	0,19 mg/m³

(1) Skin

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Nitroglycerin	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 55-63-0	Dermal	2,5 mg/kg	Not relevant	0,5 mg/kg	Not relevant
EC: 200-240-8	Inhalation	Not relevant	Not relevant	Not relevant	Not relevant
3-methyl-1,1-diphenylurea	Oral	Not relevant	Not relevant	Not relevant	Not relevant
CAS: 13114-72-2	Dermal	Not relevant	Not relevant	1,167 mg/kg	Not relevant
EC: 236-039-7	Inhalation	Not relevant	Not relevant	4,114 mg/m³	Not relevant

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Nitroglycerin	Oral	Not relevant	Not relevant	0,5 mg/kg	Not relevant
CAS: 55-63-0	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
EC: 200-240-8	Inhalation	Not relevant	Not relevant	Not relevant	Not relevant

PNEC:

Identification				
Nitroglycerin	STP	Not relevant	Fresh water	0,02 mg/L
CAS: 55-63-0	Soil	Not relevant	Marine water	Not relevant
EC: 200-240-8	Intermittent	0,02 mg/L	Sediment (Fresh water)	Not relevant
	Oral	Not relevant	Sediment (Marine water)	Not relevant
3-methyl-1,1-diphenylurea	STP	10 mg/L	Fresh water	0,02 mg/L
CAS: 13114-72-2	Soil	Not relevant	Marine water	Not relevant
EC: 236-039-7	Intermittent	0,204 mg/L	Sediment (Fresh water)	Not relevant
	Oral	Not relevant	Sediment (Marine water)	Not relevant

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.
All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Compulsory use of face mask	Filter mask for particles	CE CAT III	EN 149:2001+A1:2010	Replace when an increase in resistence to breathing is observed.

C.- Specific protection for the hands

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks	CE CAT I		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN ISO 21420:2020 and EN ISO 374-1:2016+A1:2018

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	CE CAT II	EN ISO 16321-1:2022+A1:2025 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Antistatic and fireproof protective clothing	CE CAT III	EN 1149-1:2007 EN 1149-2:1998 EN 1149-3:2004 UNE-EN ISO 18526-1 al 4:2020 EN ISO 14116:2015 EN 1149-5:2018	Limited protection against flames.

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 ºC:	Solid
Appearance:	Cylindrical grains
Colour:	Black, Grey
Odour:	Odourless
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	Not relevant *
Vapour pressure at 20 ºC:	Not relevant *
Vapour pressure at 50 ºC:	Not relevant *
Evaporation rate at 20 ºC:	Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Product description:

Density at 20 ºC:	Not relevant *
Relative density at 20 ºC:	Not relevant *
Dynamic viscosity at 20 ºC:	Not relevant *
Kinematic viscosity at 20 ºC:	Not relevant *
Kinematic viscosity at 40 ºC:	Not relevant *
Concentration:	Not relevant *
pH:	Not relevant *
Vapour density at 20 ºC:	Not relevant *
Partition coefficient n-octanol/water 20 ºC:	Not relevant *
Solubility in water at 20 ºC:	Not relevant *
Solubility properties:	Soluble in organic solvents
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *

Flammability:

Flash Point:	Not relevant *
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	>165 ºC
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *

Explosive (Solid):

Lower explosive limit:	Not relevant *
Upper explosive limit:	Not relevant *

Particle characteristics:

Median equivalent diameter:	Not relevant *

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	H203: Explosive, fire, blast or projection hazard.
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *

Other safety characteristics:

Surface tension at 20 ºC:	Not relevant *
Refraction index:	Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

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SECTION 10: STABILITY AND REACTIVITY (continued)

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Risk of explosion	Not applicable	Precaution	Avoid direct impact	Not applicable

Prolonged temperature stress causes a decrease in stability.

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

Both acids and bases cause decomposition of the gunpowder. Decomposition can be violent and lead to an explosion.

10.6 Hazardous decomposition products:

See sections 10.3, 10.4 and 10.5 for a detailed description of the degradation products. Depending on the decomposition conditions, the decomposition may release complex mixtures of chemical substances: Nitrogen oxides (NOx), carbon dioxide (CO_2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Can be fatal if consumed. For more information see section 2.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Can be fatal if the product is absorbed through the skin. For more information on the secondary effects of skin contact see section 2.
- Contact with the eyes: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
  IARC: Not relevant
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Nitroglycerin CAS: 55-63-0 EC: 200-240-8	LD50 oral	5 mg/kg	
	LD50 dermal	5 mg/kg	
	LC50 inhalation vapour	0,5 mg/L	
3-methyl-1,1-diphenylurea CAS: 13114-72-2 EC: 236-039-7	LD50 oral	500 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation dust	>5 mg/L	
Cellulose nitrate CAS: 9004-70-0 EC: 682-719-5	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation dust	>5 mg/L	

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

Harmful to aquatic life with long lasting effects.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
Nitroglycerin	LC50	3,6 mg/L (96 h)	Pimephales promelas	Fish
CAS: 55-63-0	EC50	18 mg/L (48 h)	Ceriodaphnia dubia	Crustacean
EC: 200-240-8	EC50	1,15 mg/L (96 h)	Selenastrum capricornutum	Algae
3-methyl-1,1-diphenylurea	LC50	>10 - 100 mg/L (96 h)		Fish
CAS: 13114-72-2	EC50	>10 - 100 mg/L (48 h)		Crustacean
EC: 236-039-7	EC50	>10 - 100 mg/L (72 h)		Algae

Chronic toxicity:

Identification	Concentration		Species	Genus
Nitroglycerin	NOEC	0,12 mg/L	Pimephales promelas	Fish
CAS: 55-63-0 EC: 200-240-8	NOEC	3,23 mg/L	Ceriodaphnia dubia	Crustacean

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.2 Persistence and degradability:

Not relevant

12.3 Bioaccumulative potential:

Not relevant

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
Nitroglycerin	Koc	500	Henry	Not relevant
CAS: 55-63-0	Conclusion	Low	Dry soil	Not relevant
EC: 200-240-8	Surface tension	4,951E-2 N/m (25 ºC)	Moist soil	Not relevant

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Type of waste (Regulation (EU) No 1357/2014):

HP1 Explosive, HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2025 and RID 2025:

14.1	**UN number or ID number:**	UN0161
14.2	**UN proper shipping name:**	POWDER, SMOKELESS
14.3	**Transport hazard class(es):**	1
	Labels:	1.3C
14.4	**Packing group:**	N/A
14.5	**Environmental hazards:**	No
14.6	**Special precautions for user**	
	Special regulations:	Not relevant
	Tunnel restriction code:	C5000D
	Physico-Chemical properties:	see section 9
	Limited quantities:	0
14.7	**Maritime transport in bulk according to IMO instruments:**	Not relevant

Transport of dangerous goods by sea:

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N-Powder High Energy, N500-series (IP)
N515, N526, N530, N540,N545, N550, N555, N560, N565, N568, N570

SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IMDG 42-24:

14.1	**UN number or ID number:**	UN0161
14.2	**UN proper shipping name:**	POWDER, SMOKELESS
14.3	**Transport hazard class(es):**	1
	Labels:	1.3C
14.4	**Packing group:**	N/A
14.5	**Marine pollutant:**	No
14.6	**Special precautions for user**	
	Special regulations:	Not relevant
	EmS Codes:	F-B, S-Y
	Physico-Chemical properties:	see section 9
	Limited quantities:	0
	Segregation group:	Not relevant
14.7	**Maritime transport in bulk according to IMO instruments:**	Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2025:

14.1	**UN number or ID number:**	UN0161
14.2	**UN proper shipping name:**	POWDER, SMOKELESS (PROHIBITED TRANSPORT)
14.3	**Transport hazard class(es):**	1
	Labels:	1.3C
14.4	**Packing group:**	N/A
14.5	**Environmental hazards:**	No
14.6	**Special precautions for user**	
	Physico-Chemical properties:	see section 9
14.7	**Maritime transport in bulk according to IMO instruments:**	Not relevant

SECTION 15: REGULATORY INFORMATION

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

- Article 95, REGULATION (EU) No 528/2012: Not relevant
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not relevant
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
P1a	EXPLOSIVES	10,000	50,000

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):

Not relevant

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

- CONTINUED ON NEXT PAGE -

N-Powder High Energy, N500-series (IP)
N515, N526, N530, N540,N545, N550, N555, N560, N565, N568, N570

SECTION 15: REGULATORY INFORMATION (continued)

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Not relevant

Texts of the legislative phrases mentioned in section 2:

H203: Explosive, fire, blast or projection hazard.
H373: May cause damage to organs through prolonged or repeated exposure.
H412: Harmful to aquatic life with long lasting effects.
H301+H311: Toxic if swallowed or in contact with skin.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 1: H310 - Fatal in contact with skin.
Acute Tox. 2: H300+H330 - Fatal if swallowed or if inhaled.
Acute Tox. 4: H302 - Harmful if swallowed.
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Expl. 1.1: H201 - Explosive, mass explosion hazard.
Expl. 1.3: H203 - Explosive, fire, blast or projection hazard.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://echa.europa.eu
http://eur-lex.europa.eu

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

- END OF SAFETY DATA SHEET -