




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

- 1.1 Product identifier:** High Energy NC Powder
Company product code: N500-series, High Energy NC Powder
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Propellant for ammunition
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
Fax: +358 14 3779 613
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) n° 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) n° 1272/2008.
Acute Tox. 2: Acute inhalation toxicity, Category 2, H330
Acute Tox. 3: Acute toxicity on contact with skin, Category 3, H311
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
Expl. 1.1: Explosives, Category 1.1, H201
STOT RE 2: Specific target organ toxicity, repeated exposure, Category 2, H373
- 2.2 Label elements:**
CLP Regulation (EC) n° 1272/2008:
Danger
- 
- Hazard statements:**
Acute Tox. 2: H330 - Fatal if inhaled
Acute Tox. 3: H311 - Toxic in contact with skin
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
Expl. 1.1: H201 - Explosive, mass explosion 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/bond container and receiving equipment
P250: Avoid abrasion, shock and friction
P280: Wear protective gloves/protective clothing/eye protection/face protection
P370+P380: In case of fire: Evacuate area
P372: Explosion risk in case of fire
P373: DO NOT fight fire when fire reaches explosives
P401: Store with extreme precaution
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively
- Substances that contribute to the classification**
Glycerol trinitrate
- 2.3 Other hazards:**
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

Components:

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: Non-applicable EC: Non-applicable Index: 603-037-00-6 REACH: Non-applicable	Nitrocellulose	ATP CLP00	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	Glycerol trinitrate	ATP CLP00	<15 %
	Regulation 1272/2008	Acute Tox. 2: H310+H330; Acute Tox. 4: H302; Aquatic Chronic 2: H411; Expl. 1.1: H201; STOT RE 2: H373 - Danger	
CAS: 13114-72-2 EC: 236-039-7 Index: Non-applicable REACH: Non-applicable	3-methyl-1,1-diphenylurea	Self-classified	1 - <3 %
	Regulation 1272/2008	Eye Irrit. 2: H319 - Warning	

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

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. Heating can release hazardous gases, nitrogen oxides (NOx), avoid exposure.

By skin contact:

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, as 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 IN CONSCIOUS PEOPLE!) 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:

Exposing to Nitrogen oxides (NOx) may cause symptoms of poisoning after several hours. Keep under medical supervision for at least 48 hours.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS RECOMMENDED to use water as an extinguishing agent.

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. In case of fire and/or explosion do not breathe fumes which may contain nitrogen oxides (NOx). Evacuate personnel to safe areas.

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SECTION 5: FIREFIGHTING MEASURES (continued)

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Can only be extinguished by effective cooling. Burns without auxiliary oxygen. Very fast, deflagration like burning, may turn to explosion. At risk of fire people shall be evacuated to a safe distance.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Collect the leaked product into sealed containers for disposal. Eliminate any sources of ignition. Use non-sparking tools. Keep away from heat, sparks, open flames and hot surfaces. – No smoking. Consult experts. Evacuate unauthorized personnel.

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.

6.3 Methods and material for containment and cleaning up:

Avoid metal to metal contact. Collect the product carefully using for example a shovel. Do not use vacuum cleaner or similar to avoid ignition. NOTE! Explosives can detonate. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used. Equipment must be adapted to work with explosives. Avoid spillage.

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

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

D.- Technical recommendations to prevent environmental risks

Sweep up and shovel product or other means and place in container for disposal See sections 8 and 13.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food.

Store in original container. Keep in a dry, cool place. Incompatible with acids and bases. For additional information see subsection 10.5

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 work environment
Nuisance dust: Inhalable dust 10 mg/m3 // Respirable dust 4 mg/m3

8.2 Exposure controls:



A.- General security and hygiene measures in the work place

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 professional exposure limits. In case of using individual protection equipment they should have the CE marking in accordance with Directive 89/686/EC. For more information on Personal Protection 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
 Mandatory respiratory tract protection	Filter mask for gases and vapours		EN 405:2001+A1:2009	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.



C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	NON-disposable chemical protective gloves		EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.



D.- Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Face mask		EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2012	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Bodily protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory complete body protection	Antistatic and fireproof protective clothing		EN 1149-1:2006 EN 1149-2:1997 EN 1149-3:2004 EN 168:2001 EN ISO 14116:2008/AC:2009 EN 1149-5:2008	Limited protection against flames.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

*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)

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 20 °C:	Solid
Appearance:	Cylindar grains, flakes
Color:	Graphitized: dark grey / Not graphitized: whitish, yellowish or dark
Odor:	Odourless

Volatility:

Boiling point at atmospheric pressure:	Non-applicable *
Vapour pressure at 20 °C:	Non-applicable *
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

Product description:

Density at 20 °C:	Non-applicable *
Relative density at 20 °C:	Non-applicable *
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *

Flammability:

Flash Point:	min. 170°C
Autoignition temperature:	>175 °C. Extreme risk of ignition by shock, friction, fire or other sources of ignition
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

9.2 Other information:

Explosive properties:	Explosive
Oxidising properties:	Not oxidising

*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.

10.2 Chemical stability:

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

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: Shock, friction, fire, heating or electrostatic charges

Applicable for handling and storage at room temperature:

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SECTION 10: STABILITY AND REACTIVITY (continued)

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Risk of explosion	Not applicable	Stability decrease	Not applicable	Not applicable

10.5 Incompatible materials: Strong oxidizers and strong bases

Incompatible	Not applicable	Avoid direct impact	Not applicable	Others
				Not applicable

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds. Nitrous gases formed during heating and fire.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Dangerous health implications:

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

A.- Ingestion:

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. 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 dangerous for this effect. For more information see section 3.

B- Inhalation:

- Acute toxicity: Inhalation after prolonged exposure may be lethal.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes:

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

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

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

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Other information:

Non-applicable

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
	LD50 oral	LD50 dermal	
Nitrocellulose Index: 603-037-00-6 CAS/EC: Non-applicable	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	Non-applicable	
Glycerol trinitrate CAS: 55-63-0 EC: 200-240-8	LD50 oral	500 mg/kg (ATEi)	
	LD50 dermal	50 mg/kg (ATEi)	
	LC50 inhalation	0,05 mg/L (4 h) (ATEi)	
3-methyl-1,1-diphenylurea CAS: 13114-72-2 EC: 236-039-7	LD50 oral	>2000 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	Non-applicable	

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
	LC50	EC50		
Glycerol trinitrate CAS: 55-63-0 EC: 200-240-8	LC50	1 - 10 mg/L (96 h)		Fish
	EC50	1 - 10 mg/L (48 h)		Crustacean
	EC50	1 - 10 mg/L (96 h)		Algae

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Koc	Conclusion	Henry	Surface tension
Glycerol trinitrate CAS: 55-63-0 EC: 200-240-8	Koc	500	Henry	Non-applicable
	Conclusion	Low	Dry soil	Non-applicable
	Surface tension	Non-applicable	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
	It is not possible to assign a specific code, as it depends on the intended use by the user	Dangerous

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-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

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SECTION 13: DISPOSAL CONSIDERATIONS (continued)

In accordance with Annex II of Regulation (EC) n°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 2015 and RID 2015:



14.1 UN number:	UN 0161	UN 0509
14.2 UN proper shipping name:	Powder, smokeless	Powder, smokeless
14.3 Transport hazard class(es):	1	1
Labels:	1.3 C	1.4 C
14.4 Packing group:	Non-applicable	Non-applicable
14.5 Dangerous for the environment:	Non-applicable	Non-applicable
14.6 Special precautions for user		
Special regulations:	-	-
Tunnel restriction code:	1 (C5000D)	2 (E)
Physico-Chemical properties:	see section 9	see section 9
Limited quantities:	0	0
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable	Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 37-14:



14.1 UN number:	UN 0161	UN 0509
14.2 UN proper shipping name:	Powder, smokeless	Powder, smokeless
14.3 Transport hazard class(es):	1	1
Labels:	1.3 C	1.4 C
14.4 Packing group:	Non-applicable	Non-applicable
14.5 Dangerous for the environment:	Non-applicable	Non-applicable
Special precautions for user		
Special regulations:	-	-
14.6 EmS Codes:	F-B, S-Y	F-B, S-Y
Physico-Chemical properties:	see section 9	see section 9
Limited quantities:	0	0
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:	Non-applicable	Non-applicable



SECTION 14: TRANSPORT INFORMATION (continued)

Transport of dangerous goods by air:

PROHIBITED

ALLOWED

With regard to IATA/ICAO 2015:



14.1 UN number:	UN 0161	UN 0509
14.2 UN proper shipping name:	Non-applicable	Powder, smokeless
14.3 Transport hazard class(es):	Non-applicable	1
Labels:	Non-applicable	1.4 C
14.4 Packing group:	Non-applicable	Packing instructions A14(b), PP48
14.5 Dangerous for the environment:	Non-applicable	Non-applicable
14.6 Special precautions for user		
Physico-Chemical properties:	Non-applicable	see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:		
	Non-applicable	Non-applicable

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable
 Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable
 Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable
 Article 95, REGULATION (EU) No 528/2012: Non-applicable
 REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

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

Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

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:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EU) N° 453/2010, Regulation (EC) N° 2015/830)

Modifications related to the previous security card which concerns the ways of managing risks. :

Non-applicable



SECTION 16: OTHER INFORMATION (continued)

Texts of the legislative phrases mentioned in section 2:

H201: Explosive, mass explosion hazard
H373: May cause damage to organs through prolonged or repeated exposure
H412: Harmful to aquatic life with long lasting effects
H311: Toxic in contact with skin
H330: Fatal if inhaled

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) n° 1272/2008:

Acute Tox. 2: H310+H330 - Fatal in contact with skin or if inhaled
Acute Tox. 4: H302 - Harmful if swallowed
Aquatic Chronic 2: H411 - Toxic 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
Eye Irrit. 2: H319 - Causes serious eye irritation
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure

Classification procedure:

STOT RE 2: Calculation method
Aquatic Chronic 3: Calculation method
Acute Tox. 3: Calculation method
Acute Tox. 2: Calculation method

Advice related to training:

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

Principal bibliographical sources:

<http://esis.jrc.ec.europa.eu>
<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
RID: Regulations concerning the international railway transport of dangerous goods
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol–water partition coefficient
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -