

SAFETY DATA SHEET  
ACCORDING TO Regulation (EC) No. 1907/2006

Date of Issue: 27.09.2002

Version: 12.0

Revision Date: 11.1.2016

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier**Product name: **SMOKELESS DOUBLE BASE POWDER LOVEX – without DNT and DBP****1.2 Relevant identified uses of the substance or mixture and uses advised against**

For production of hunting, sporting and military ammunition. Do not use for other purposes.

**1.3 Details of the supplier of the safety data sheet**

Explosia a.s. tel.: +420 466 825 202  
530 02 Pardubice - Semtin fax: +420 466 822 941  
Czech Republic e-mail: sds@explosia.cz

**1.4 Emergency telephone number**

Producer:

tel.: +420 466 824 402

fax: +420 466 824 448

National advisory body:

Toxicological Information Centre (TIS): Hospital for Occupational Diseases, Na Bojišti 1171/1, 128 21 Prague 2,  
tel. 224 919 293, 224 915 402 or 224 914 575**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****2.1.1 Classification according to Regulation (EC) No 1272/2008**

Expl. 1.3; H203

Acute Tox. 2; H300+H310+H330

STOT RE 2; H373

Aquatic Chronic 2; H411

**2.1.2 Additional information**

For full text of Hazard- and EU Hazard statements see section 16.

**2.2 Label elements****Hazard pictograms:****Signal word:**

Danger.

**Components of mixture for introducing on label:**

Product contains glycerol trinitrate.

**Hazard statements:**

H203 Explosive; fire, blast or projection hazard.

**Precautionary statements:**

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

P250 Do not subject to grinding/shock/.../friction.

P370 + P380 In case of fire: Evacuate area.

P373 DO NOT fight fire when fire reaches explosives.

**Additional information on label:**

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**2.3 Other hazards**

The product does not meet the criteria for PBT, vPvB.

The product does not contain SVHC substances. Raw materials used for production of this product meet the requirements of REACH Regulation.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Description of the mixture:**

Mixture of nitrocellulose, glycerol trinitrate, diphenylamine, Centralite I, ethylacetate and other components.

**Hazardous ingredients:**

Identification name	CAS No ES No Index No Registration No	Content %	Classification according to (ES) 1272/2008 (CLP)
Nitrocellulose	9004-70-0 - 603-037-00-6 -	max. 87	Expl. 1.1; H201
Glycerol trinitrate	55-63-0 2000-240-8 603-034-00-X 01-2119488893-18-XXXX	max. 51	Unst. Expl., H200 Acute Tox. 1, H310 Acute Tox. 2, H300+H330 STOT RE 2, H373 Aquatic Chronic 2, H411
Centralite I	85-98-3 201-645-2 - 01-2119969270-36-0000	max. 8.0	Acute Tox.4, H302 Aquatic Chronic 3, H412
Diphenylamine	122-39-4 204-539-4 612-026-00-5 01-2119488966-13-0003	max. 1.5	Acute Tox. 3; H301+ H311+ H331 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M=1
Ethylacetate	141-78-6 205-500-4 607-022-00-5 01-2119475103-46-XXXX	max. 1.2	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066

For full text of Hazard- and EU Hazard statements see section 16.

**SECTION 4: FIRST AID MEASURES**

**4.1 Description of first aid measures**

**General notes:**

In all cases keep the victim at physical and psychic rest and keep warm. Always seek medical advice promptly.

**Following inhalation:**

Break off the exposition. Move the victim to fresh air. If not breathing, give artificial respiration.

**Following skin contact:**

Remove contaminated clothing immediately. Wash affected area with plenty of water and soap.

**Following eye contact:**

Flush eyes with moderate water stream for 15 min at minimum. Never neutralize. If the afflicted person is wearing contact lenses, they must be removed immediately.

**Following ingestion:**

Rinse mouth with fresh water, give to drink some 0,2-0,3 l water containing active carbon (e.g. 5 tbs Carbsorb)

and within not more than one hour induce vomiting (meaningless if induced later). Give active carbon repeatedly, no matter if the vomiting was induced or not. Seek medical advice. Do not induce vomiting in case of unconsciousness, convulsions or bad physical conditions.

#### **4.2 Most important symptoms and effects, both acute and delayed**

Higher exposure may cause headaches, nausea, slowing the pulse frequency down and dizziness.

#### **4.3 Indication of any immediate medical attention and special treatment needed**

No data.

### **SECTION 5: FIREFIGHTING MEASURES**

#### **5.1 Extinguishing media**

Suitable extinguishing media: water spray. Adapt extinguishing media to the kind of fire.

Unsuitable extinguishing media: carbon dioxide.

#### **5.2 Special hazards arising from the substance or mixture**

Heat, flame, spark, impact or friction, local overheating to the flash point and exposure to aggressive alkaline or acidic chemicals may cause ignition of dry powder. Extreme danger of explosion. Water-cool containers from the safe distance and try to prevent the spread of a fire. If the fire is out of control or involves propellants, then evacuate personnel to a safe distance.

In case of burning, toxic oxides of nitrogen and carbon are formed.

#### **5.3 Advice for fire-fighters**

Self-contained breathing apparatus and protective clothing conforming to EN 469.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid the free movement of persons in contaminated area. Wear personal protective equipment. Sprinkle the spilled product with water. Avoid spreading of the product. Avoid contact of spilled material with open fire, electric sparks and aggressive chemical compounds.

#### **6.2 Environmental precautions**

Avoid discharge to surface- and groundwater. If it is not possible, inform police and fire-fighters.

#### **6.3 Methods and material for containment and cleaning up**

Sprinkle spilled powder with water, sweep up carefully and place into impermeable containers. Use only tools from non-sparking material. Incinerate only in the approved place in accordance with national regulations relating to explosives.

#### **6.4 Reference to other sections**

More detailed disposal instructions see section 13, personal protective equipment see section 8.

### **SECTION 7: HANDLING AND STORAGE**

#### **7.1 Precautions for safe handling**

Handle in accordance with explosives. Keep away from open flame and hot pieces. Do not eat, drink or smoke. Take precautionary measures against the electrostatic discharges. Use only tools from non-sparking material. Maximum care should be taken during handling (lifting, transferring, opening of containers) and transport. Observe personal hygiene measures, wear suitable protective clothing and gloves. After handling wash thoroughly with water and soap. Ensure drink water for the first-aid.

#### **7.2 Conditions for safe storage, including any incompatibilities**

Store according to national regulations relating to explosives. Keep only in original containers under temperature

not higher than 35 °C, out of reach of sources of ignition.

### 7.3 Specific end use(s)

Manufacturing and using ammunition - observe safety regulations for production and processing of explosives. When using, do not eat, drink or smoke. Observe general personal hygiene measures.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Exposition limits according to Czech government statute No. 361/2007 Sb. in actual version

Occupational exposure limit values:

Substance / State	Long term mg/m <sup>3</sup>	Short term mg/m <sup>3</sup>
Glycerol trinitrate / Czech republic	PEL: 0,5	NPK-P: 1,0
Diphenylamine / Czech republic	PEL: 10	NPK-P: 20
Ethylacetate / Czech republic	PEL: 700	NPK-P: 900

#### 8.1.2 Monitoring procedures

To ensure observance of Czech government statute 361/2007 Sb. and to observe obligations included.

#### 8.1.3 Biological limit values

Not determined in Czech Republic and European Union.

#### 8.1.4 DNEL and PNEC values

DNEL a PNEC values for diphenylamine at registration are not determined.

### 8.2 Exposure controls

#### 8.2.1 appropriate engineering controls

Process enclosures, local exhaust, general ventilation.

#### 8.2.2 Personal protective equipment

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. All used personal protective equipment should conform Regulation 89/686/EEC.

Eye and face protection - chemical goggles;

Skin protection - rubber gloves depending on operation, conforming EN 374, protective clothing, boots, cap;

Respiratory protection – dust filter mask if needed; in case of exceeding PEL use the respirator with filter protecting from organic vapours.

#### 8.2.3 Environmental exposure controls

Do not exceed emission limits. Avoid release to the environment. If it is impossible, substance should be removed safely from the place of leakage. In case of leakage of the mixture to the air or water sources, soil or sewer system, inform relevant authorities about leakage.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance:	solid - grains of grey-black colour
Odour:	odourless
Odour threshold:	not applicable
pH :	not available
Melting point/freezing point:	not available
Initial boiling point and boiling range:	not available
Flash point:	not applicable
Evaporation rate:	not applicable
Flammability:	not applicable - explosive
Upper flammability or explosive limits:	not applicable

Lower flammability or explosive limits:	not applicable
Vapour pressure:	not applicable
Vapour density:	not applicable
Relative density:	ca 1.3 g.cm <sup>-3</sup> (20 °C)
Solubility:	insoluble in water
Partition coefficient: n-octanol/water:	not available
Auto-ignition temperature:	not applicable - explosive
Decomposition temperature:	not applicable
Viscosity:	not applicable
Explosive properties:	Expl. 1.3C
Oxidising properties:	not applicable - explosive

## 9.2 Other information

Flash point: 165 to 175 °C.

Bulk density: 0.6 – 0.7 g.cm<sup>-3</sup>.

Impact sensitivity: 5 to 30 J.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Explosive.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Unknown.

### 10.4 Conditions to avoid

Effects of heat, flame, mechanical or electric sparks, direct sun light and artificial ultraviolet radiation.

### 10.5 Incompatible materials

Strong oxidising agents, acids, alkalis and amines.

### 10.6 Hazardous decomposition products

Oxides of nitrogen and carbon.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity:	Fatal if swallowed, in contact with skin or if inhaled. Acute Tox. 2; H300+H310+H330 Glycerol trinitrate - LD <sub>50</sub> : 685 mg.kg <sup>-1</sup> , rat, oral Diphenylamine - LD <sub>50</sub> : 1165 mg.kg <sup>-1</sup> , rat, oral
Skin corrosion/irritation:	not containing these substances (or less than classification limit)
Serious eye damage/irritation:	not containing these substances (or less than classification limit)
Respiratory or skin sensitisation:	not containing these substances (or less than classification limit)
Germ cell mutagenicity:	not containing these substances (or less than classification limit)
Carcinogenicity:	not containing these substances (or less than classification limit)
Reproductive toxicity:	not containing these substances (or less than classification limit)
STOT-single exposure:	not containing these substances (or less than classification limit)
STOT-repeated exposure:	May cause damage to organs through prolonged or repeated exposure. STOT RE 2; H373
Aspiration hazard :	not containing these substances (or less than classification limit)

### 11.2 Likely routes of exposure

Skin exposure and ingestion.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxic to aquatic life with long lasting effects. Aquatic Chronic 2; H411

Glycerol trinitrate LC<sub>50</sub> for freshwater fish: 3.48 mg.l<sup>-1</sup>

Diphenylamine LC<sub>50</sub> for freshwater fish: 2.2 mg.l<sup>-1</sup>

Difenylamin EC<sub>50</sub> for daphnia: 2 mg.l<sup>-1</sup>, 48 h

Diphenylamine EC<sub>50</sub> for algae: 2.17 mg.l<sup>-1</sup>, 72 h

### 12.2 Persistence and degradability

Lack of data.

### 12.3 Bioaccumulative potential

Lack of data.

### 12.4. Mobility in soil

Lack of data.

### 12.5 Results of PBT and vPvB assessment

Assessment was not carried out.

### 12.6 Other adverse effects

Lack of data.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Substance/mixture: Sprinkle spilled powder with water, sweep up carefully and place into impermeable containers. Use only non-sparking tools. Incinerate only in the place approved for explosives burning according to national regulations relating to explosives.

Packaging: Disposal by burning only in the place approved for this purpose according to national regulations relating to explosives.

### Waste codes / waste designations according to EWC:

16 04 03 N Other waste explosives

## SECTION 14: TRANSPORT INFORMATION

14.1 UN number:	0161 Note: This classification is valid only for the trademarks of smokeless powders in original packages classified this way by the Resolution on classification of dangerous goods of class 1.
14.2 UN proper shipping name:	POWDER SMOKELESS
14.3 Transport hazard class(es):	1
14.4 Packing group:	
14.5 Environmental hazards:	yes
14.6 Special precautions for user:	no
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:	not applicable
14.8 Other applicable information:	
- for ADR/RID	

Classification code:	1.3C
Label:	1 + „fish and tree“
<b>- for IMDG</b>	
EmS	F-B, S-Y
<b>- for IATA</b>	Air transport is forbidden with the exception for packaging in the special powder cartridge SPN-01 in quantities 80 g of smokeless powder. The cartridge is classified as follows: UN 0349 ARTICLES, EXPLOSIVE, N.O.S., 1.4S.

## SECTION 15: REGULATORY INFORMATION

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

#### EU Regulations:

Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), in the wording of later regulations

Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP), in the wording of later regulations

European Waste Catalogue (EWC)

Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances – Annex 1, Part II

### 15.2 Chemical safety assessment

Assessment was not carried out.

## SECTION 16: OTHER INFORMATION

### Changes to the previous version:

Version 11.0 – Product classified in accordance with Regulation no. 1272/2008/EC.

Version 12.0 - Updating according to Regulation No 2015/830/EC.

- Supplementation of registration numbers

#### Abbreviations:

CAS	Chemical Abstracts Service
EN	European standard
EWC	The European Waste Catalogue
PEL	Permissible Exposure Limit, long-term limit (8 hours)
NPK-P	Maximum allowable concentrations of chemicals in the workplace atmosphere, short-term limit
DNEL	Derived no-effect level
PNEC	Predicted no-effect concentration
CLP	Regulation No. 1272/2008/EC
REACH	Regulation No. 1907/2006/EC
PBT	Persistent, bioaccumulative and toxic
vPvB	very persistent and very bioaccumulative
ADR	The European Agreement concerning the International Carriage of Dangerous Goods by Road
RID	Regulations concerning the International Transport of Dangerous Goods by Rail
IMDG	The International Maritime Dangerous Goods
IATA	The International Air Transport Association

#### Full text of data used for classification:

Acute Tox. 1 Acute toxicity, Category 1

Acute Tox. 2 Acute toxicity, Category 2

Acute Tox. 3 Acute toxicity, Category 3

Acute Tox. 4 Acute toxicity, Category 4

Aquatic Acute 1 Hazardous to the aquatic environment acute, Category 1

Aquatic Chronic 1 Hazardous to the aquatic environment chronic, Category 2

Aquatic Chronic 2 Hazardous to the aquatic environment chronic, Category 2

Aquatic Chronic 3 Hazardous to the aquatic environment chronic, Category 3



Expl. 1.1	Explosive, Division 1.1
Expl. 1.3	Explosive, Division 1.3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — single exposure, Category 3
Unst. Expl.	Unstable Explosive
EUH066	Repeated exposure may cause skin dryness or cracking.

H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H203	Explosive; fire, blast or projection hazard.
H225	Highly flammable liquid and vapour.
H300+330	Fatal if swallowed or if inhaled
H300+H310+H330	Fatal if swallowed, in contact with skin or if inhaled.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
M	Multiplying factor.

P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P250	Do not subject to grinding/shock/.../friction.
P370 + P380	In case of fire: Evacuate area.
P373	DO NOT fight fire when fire reaches explosives.

#### Key literature references and sources for data

legislation, chemical databases and tables

#### Relevant data for classification

The mixture is classified on the basis of the calculation method.

#### Instructions for training

For handling with the product Safety Regulations shall be elaborated, negotiated with Regional Hygienist. These Regulations shall be available in the workplace. Training by competent person only.

#### Other information:

This safety data sheet is valid for the types: D 010, D 013, D 015, D 020, D 023, D 025, D 030, D 032, D 033, D 036, D 037, D 039, D 040-02, D 051-04, D 055, D 060, D 063, D 073-04 (D073.4 as reloading powder), D 073-05 (D073.5 as reloading powder), D 073-06 (D073.6 as reloading powder), D 073-07, D 075-01, D 105, D 250, D 252, D 254, D 256, S-4<sub>N</sub>, SIPE<sub>N</sub>, TECNA<sub>N</sub>, BALISTIT 1, BALISTIT 2.

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*The information provided in this Safety Data Sheet is based on the present state of our knowledge and experience and are intended to describe our product with respect to possible safety demands. The information is not to be considered a warranty of quality specification. Recipients of our product must take responsibility for observing existing laws and regulations.*