#### Ref. : PROPELLANT POWDER

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In accordance with directive 2001/58/EC, decree of 09 November 2004 and 1907/2006/EC article 31.

#### 1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Product description	Types Concerned
PROPELLANT POWDER	- Ba 6 - Ba 9 - Ba 10

- CE TYPE number : CE 0080.EXP.12.0009
- SUPPLIER :

#### **NOBELSPORT**

 12 route du Beuzit

 29590 Pont de Buis FRANCE

 Phone
 +33 2 98 86 42 42

 Fax
 +33 2 98 73 08 82

 Mail
 securite@nobelsport.fr

- EMERGENCY CALL (INRS) : Phone +33 1 45 42 59 59

#### 2. HAZARDS IDENTIFICATION

- Behaviour of the powder within its packaging:

\* Danger of fire with minimum danger of blast and projection. No danger of mass explosion.

\* Pay particular attention to the amount of thermal flux and nitrous vapours.

- Behaviour of the powder out of its packaging:

\* The powder can change from deflagration to explosion within confined spaces. If necessary contact the manufacturer as indicated in section 16 of the data sheet.

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#### 3. <u>COMPOSITION – INFORMATION CONCERNING THE COMPONENTS</u>

#### - Nominal composition:

Preparation:Nitrocellulose :approx 93 %Diphenylamine:approx. 1%Dinitrotoluene:0 to 4%

#### - Components presenting a hazard:

Nitrocellulose Dinitrotoluene

#### 4. <u>FIRST AID</u>

<u>- In the event of accidental inhalation</u> of the nitrous vapours from the decomposition of the product, keep the person totally still – oxygen should be given by the emergency medical services.

- In the event of illness contact a doctor immediately.

#### 5. FIRE FIGHTING MEASURES

- Means of extinction:

\* Flood with large quantities of water.

\* Do not use means of extinction which smother the flames (carbon dioxide, foam, powder, etc.) because the nitrocellulose contains oxygen.

\* After extinction of the fire, the material may remain unstable and there will be a risk of self ignition. Ensure that the remaining material is thoroughly soaked..

#### 6. MEASURES TO BE TAKEN IN THE EVENT OF ACCIDENTAL SPILLAGE

- Individual precautions:

\* Collect up the material, after having it wetted, wearing suitable individual protective equipment (see section. 8).

#### - Protection of the environment:

\* In the event of accidental opening of the packaging clear up any spilled material. \* Do not dispose to rubbish tips or pour into drains and check that the product is identified on its container.

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- Cleaning methods:

\* Thoroughly soak the product with water to avoid the risk of fire.

\* Collect up material using tools recommended in section. 7, while observing the safety measures associated with the handling of explosive materials.

\* Store the product in packaging recommended by NOBELSPORT (see section. 14)

\* For the destruction of the material, follow the recommendations in section 13.

\* In the event of any specific problem contact NOBELSPORT.

#### 7. HANDLING AND STORAGE

- Handling:

Technical measures:

\* During handling, keep the product away from heat, flames and sparks, avoid friction, impact and any risk of electrostatic discharge.

\* Place a screen between the operator and the product, in order to reduce the thermal flux to the work station in the event of fire.

Precautions:

\* No smoking.

\* Avoid the creation of dust.

\* Use non ferrous tools, such as copper, brass, wood, etc.

\* Ensure that the installation is correctly earthed.

\* Handle with equipment which is dust proof. Do not use hollow bodies.

Recommendations for use:

\* Store a minimum of product in the workshops.

\* This powder can change from combustion to explosive decomposition and must be used with special precautions:

- Use hoppers with a maximum of open surface area and central exhaust hood to allow for the escape of gases in the event of fire,

- If a drawer distribution is used, uncouple it from the hopper,

- Use powder feed pipes with openings (which can be closed by means of a sheet or light plastic) to avoid confinement and exceeding critical heights (see SNPE test no. 60 on the table of safety tests : ' Pyrotechnic safety data on products').

- Do not place more than 500g of powder onto the machine.

\* Avoid contact with incompatible materials (see section 10).

#### Storage:

Technical measures:

\* Remove all defective packaging,

\* Do not open or empty packages in storage areas.

Storage conditions:

\* Packages must be stacked in a stable manner.

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\* Storage in boxes or drums should be up to a maximum height of 1.60 m, from the storage base. When handling is by hand and by suitable mechanical means, the stacks must not be raised to over three metres in height.

\* Store in a cool, well ventilated area.

Incompatible materials:

\* Do not store with materials out of class 1, or with class 1 materials whose compatibility group would be different from C or S (see section 10).

Packaging materials:

\* Storage will be made in the packaging recommended by NOBELSPORT with the maximum indicated net weight (see section. 14).

#### 8. <u>EXPOSURE CONTROL – INDIVIDUAL PROTECTION</u>

#### Individual protection:

- Body: Anti-static and flame resistant protective clothing,
- Hands: Leather gloves,
- Face: Safety glasses, safety visor.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state:	solid
- Form:	rods
- Odour:	odourless

	BA 6 - BA 9 – BA 10	
Dimensions mm	0,60 to 0,80	
Thickness mm	0,70 to 1,00	
MEV approx g/l	460 to 900	
Potential approx. cal/g	1000	
colour	Green, yellow, red, grey or brown	

- Solubility:

\* insoluble in water and hydrocarbons,

\* soluble in solvents: ketones, esters, alcohols.

- Table of results of safety tests : ' Pyrotechnic safety data on products'.

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#### 10. STABILITY AND REACTIVITY

Stability:

- Stable under recommended storage and handling conditions section. 7.

Conditions to be avoided:

- Avoid exposure to heat, impact and friction.

Materials to be avoided:

- Avoid contact with alkalis, acids, amines and oxidising agents.

Dangerous decomposition products:

- Oxides of nitrogen (nitrous vapours).

#### 11. TOXICOLOGICAL INFORMATION

- Non toxic in supplied state.
- In the event of fire, risk of release of nitrous vapours. In the event of illness contact a doctor.
- Propellant component :
- dinitrotoluene (benzenic derived) is classified :

¤ R45	: can cause cancer
¤ R40	: possible irreversible effects
¤ R23/24/25	: toxic by inhalation, by skin contact and by ingestion
¤ R62	: possible risk of fertility impairing

• diphenylamine is classified :

 $\approx R23/24/25$  : toxic by inhalation, by skin contact and by ingestion

**¤** R33 : cumulative effects hazard

#### 12. ECOLOGICAL INFORMATIONS

The dispersal of the product in the natural environment causes no specific danger, because the product is stable (see section. 10 - stability) and insoluble in water.

Diphenylamine is classified :

R50 : Very toxic to aquatic organisms.

R53 : May cause long-term adverse effects in the aquatic environment.

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### 13. CONSIDERATIONS RELATIVE TO ELIMINATION

#### Waste and residues:

- The product must not be abandoned, it must be collected for removal, as per the requirements in para. 6 then either stored under supervision as per requirements in section. 7, or destroyed in a specialist centre, by combustion with specific equipment and in thin layer.

- Do not mix with other incompatible residues (see section. 10).
- In the event of problems, it is advised to contact NOBELSPORT.
- In every case, the current environmental regulations must be observed.

#### Used packaging:

This can, depending on its condition, be reused for the same product or destroyed under the same conditions as for waste and residues.

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#### 14. INFORMATION RELATIVE TO TRANSPORTATION

Transportation classification in approved packaging:

Certificates for transportation classification INERIS n°Ag P 51/15 du 14/11/2007

<ol> <li>Approval report no.</li> <li>External packaging Internal packaging Max. net weight Official description for transportation Hazard category per UN Transport by land, ADR and RID Transport by sea IMDG Transport by air OACI/IATA</li> </ol>	BVT ABZAC N°195138 or BVT VAN LEER 1033/48 or VICMAR N° 31/E47/05/0003/01-C 45 liters cylindrical cardboard drum 1 polyethylene bag 20 kg . Powder without fumes 1.3 C UN 0161 UN 0161 Not allowed
<ul> <li>2. Approval report no.</li></ul>	BVT 1697/5 or 169713 OTOR
External packaging	4 G cardboard box
Internal packaging	20 cardboard or metal small can
Max. net weight	10 kg .
Official description for transportation	Powder without fumes
Hazard category per UN	1.3 C
Transport by land, ADR and RID	UN 0161
Transport by sea IMDG	UN 0161
Transport by air OACI/IATA	Not allowed
3. Approval report no.	BVT EMIN LEYDIER 249201
External packaging	4 G cardboard box
Intermediate packaging	59 cardboard tubes
Internal packaging	1 polyethylene sachet per tube
Max. net weight	2,950 kg
Official description for transportation	EXPLOSIVE MATERIAL NSA
Hazard category per UN	1.4 S
Transport by land, ADR and RID	UN 0481
Transport by sea IMDG	UN 0481
Transport by air OACI/IATA	UN 0481

NOBELSPORT Pont-de-Buis

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4. Approval report no. BVT 36784 index 0 on 21/10/2011 External packaging 4 G cardboard box Intermediate packaging 20 drums of 1 liter Max. net weight 10 kg Official description for transportation EXPLOSIVE MATERIAL NSA Hazard category per UN 1.4 C Transport by land, ADR and RID UN 0509 Transport by sea IMDG UN 0509 Transport by air OACI/IATA UN 0509

#### 15. <u>REGULATORY INFORMATION</u>

#### French regulations:

Decree No. 79-846 of 28 September 1979, decree of 26 September 1980 and inter-ministry bill of 20 April 2007 concerning general rules of hygiene and safety in pyrotechnic establishments. Council directive 93/15/EEC of 5 April 1993 on the harmonization of the provisions relating to the marketing and supervision of explosives for civil uses.

#### Labelling in accordance with EEC directives:

The product is classified and identified according to European community directives and respective national laws: 2004/73/EC; 2006/8/EC

#### Symbols :

E : Explosive Xn : Harmfull

#### Risk phrases :

- R2 : explosion risk by impact, friction, fire or other ignition sources
- R11 : very flammable
- R20/21/22: harmfull by inhalation, by skin contact and by ingestion
- R45(\*) : can cause cancer
- R62(\*) : possibility of fertility impairing

(\*) : applying fields are defined by the letter of the European Commission, reference 01572 on the 7/02/01 (E3/LP/cb D 2001 635056) – professionnal and industrial loading authorization (in annex).

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#### Caution advices :

\$33 \$36/37/39	<ul><li>: avoid electrostatic charge accumulation</li><li>: wear suitable protection clothes, gloves and protection equipment for the eyes and the face</li></ul>
S41	: in case of fire and/or explosion, do not breathe the smokes
S45	: in case of an accident or an ill-health, consult immediately a doctor
<b>S</b> 61	: avoid to reject in the environment

#### 16. OTHERS INFORMATIONS / WARNING

This safety data sheet completes the technical utilisation notices but does not replace them. The information it contains is based on the current state of our knowledge relative to the product concerned, on the date given. They are given in good faith. The user's attention is, in addition, drawn to the possible risks which may be encountered if the product is used for purposes other than that for which it is intended.

It is their own responsibility:

- to develop the safety measures to cover all eventualities of the use of the product, in particular, those laid out in this safety data sheet,

- to pass on to all users and persons handling the product, the appropriate safety data and to make them aware of the risks mentioned in all the documentation concerning the use of the product.

This listing cannot be considered as exhaustive and does not release the recipient from the obligations which are imposed by the regulations relevant to their own activity.

The NOBELSPORT technical services are available to provide assistance to users, wherever possible and within their area of knowledge.

Pont-de-Buis

# **MATERIAL SAFETY DATA SHEET**

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## **Pyrotechnic safety data on products**

SAFETY TEST	Ba 6 - Ba 9	Ba 10
Sensitiveness to friction (Newton)	191 à 230 N	179 à 220 N
Réf. : CSE 3.51/J1 SNPE n° 16		
Sensitiveness to impact with impact ram BAM- (joule)	2 to 2.5 J	1.7 to 2.1 J
Réf. : CSE 1045 SNPE nº 14		
Deflagration in open air in a trough (speed in mm.sec)	18	50
Réf. : CSE 3.21/L1 SNPE n° 20		
Progressive heating	174	172
Temp. of self-ignition - (°C) Réf. : CSE 3.02/F2 SNPE n° 47	SNPE 1-79	SNPE 1-79
Transition deflagration to detonation - Critical length (mm)	0,14	0,14
Réf. : CSE 4.01/M4 SNPE n° 60	(2)	Sept 78
Aptitude for detonation behind barrier - (number of cards)	240 < N < 290	240 < N < 290
Réf. : CSE 3.75/P5 SNPE n° 27	(2)	(1)

(1) Results obtained during INERIS technical approval.

(2) Results obtained on similar product.

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ASSOCIATION DES FABRICAATS EUROPPINS De NUXITIONS DE SPORT

ATTLEE & LA FERM



ASSOCIATION OF SURGPLAN MANUPACTURIES; OF SPORTING AMBRUNITION

with rises.

AFEMS M. E. VAN NIKANENBARINSE, 4. G-1160 BIR XELLER TEL SZ-S-STATZIT FX 32-9-STATIOL TX 40-SZ464

> Mrs L. Perssius European Commission DG Eaterprise Rue do la Loi, 200 1040 Bounda

Brumela, 27 November 2000 BJ/ch/419/001 23 33

#### Re : DNT in propelant

#### Deer Mrs Permitts.

We thank you for the opportunity you gave us on 21 November to capiein how propellant containing Distinutalizate is distributed for the loading activity of sporting aramonition.

There are three distribution channels;

- 1. about 94% of the production goes to industrial manufacturers;
- about 3% goes to professionals, s.g. gunmaths who use it for loading small lots of emmunition, normally assisted by semiarizonalic loading equipment;
   about 3% goes to dealer who recall it to final constituer, e.g. humars or sport shooters.
- who use it to load or related their eromunition.

In 2006 of the three above mentioned cases done the propellant get in physical contact with human shin.

On the base of the information and documentation provided by CEFIC/AFEMS, we understand you agree that observels 1 and 2 are excluded by the scope of the Parliament and Council Directive amending Dir, 76/769 for substances classified as carcinogenic, minagenic or toxic to reproduction.

We understand also that your measure is only related to route 3 as per above and the Commission is not anyway prepared to support a desogation for the use of DNT in propellant.

As discussed during our 21<sup>\*</sup> November meeting, we would be grateful to precive confirmation that propellant, containing DNT, when sold to industry or to professionals (s.g. gunsmith), channel I and 2, does not fails under the scope of the foresaid Directive.

We look forward to bearing from you in this matter.

Kied regards,

3-1/-

Pont-de-Buis

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Annexe

\*\*\*\*

EUROPEAN COMMISSION

minormanial separat of attenuise policy, measure-based and specific initialitie

01572 07.02.2001

Brussels, F3A.2/cb D(2001) #35856

Subject: DNT is propellants

Detr Mr Jeana;\* \*

1

I rate to our meeting on  $71^6$  November 2000 and to your latter of  $27^6$  November 2000 concerning the use of dimitrotolecce, and the draft proposal for a  $23^6$  amonfment to Directive 76/769 on substances newly classified at catchingans, instagens of toxic to reproduction – entropy 1 at 2 (CMR).

The principle to ban the use by the general public of substances classified as CMR entropy I or 2 was first introduced by Directive 94/60/BC, 14<sup>th</sup> aroundment to Directive 76/769. The objectives were to preserve the internal Market and to protect the health of consumers. The reasoning behind the han was that consumers, unlike projectional and industrial users, do not have the means to convol the date of headling such heardour substances.

In the specific case of disintatellaries in propellarts for annumition, the placing on the market for industrial or professional uses would get be asvered by the proposed Directive. However, any placing on the market for use by the final consumer in reloading his own approximition would be benned under the Directive.

....

Youn sincersly.