

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

 NX01011200_EN
 IND 406 370

 Issue date: 31.05.2017
 Revision date: 14.07.2021

 Version: 3.1
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SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Product form : Mixture
 Product name : Non-electric detonator
 UFI : 02D6-23JK-PD9G-HFCF
 Product code : NX01011200_EN
 Synonyms : Shockstar MS, Shockstar MS-1, Shockstar TS (25-1000 ms), Shockstar TS-1 (25-1000 ms), Shockstar Dual Delay (max. 1000 ms), Shockstar Dual Delay-1 (max. 1000 ms), / Shockstar PF (25-1000 ms), Shockstar TS-NZ (25-1000 ms), Shockstar MS-NZ, MS 25/50 NE, MS 25/50 1 NE, MS 500 SA NE, Shock*Star MS SA

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

Main use category : Professional use, Industrial use
 Use of the substance/mixture : Borehole detonators for initiation of industrial explosives. Restricted to professional users.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

AUSTIN DETONATOR s.r.o.
 Jasenice 712
 75501 Vsetín - Czech Republic
 T : +420 571 404 001 - F : +420 571 404 002
msds@austin.cz - www.austin.cz

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	
United Kingdom	National Poisons Information Service Edinburgh Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0344 892 0111	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	

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SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Explosives, Division 1.1	H201
Reproductive toxicity, Category 1A	H360Df
Specific target organ toxicity — Repeated exposure, Category 2	H373
Hazardous to the aquatic environment — Chronic Hazard, Category 3	H412

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Explosive; mass explosion hazard. May damage the unborn child. Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS01

GHS08

Signal word (CLP) :

: Danger

Contains :

: Lead diazide, lead azide

Hazard statements (CLP) :

: H201 - Explosive; mass explosion hazard.
 H360Df - May damage the unborn child. Suspected of damaging fertility.
 H373 - May cause damage to organs through prolonged or repeated exposure.
 H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

: P201 - Obtain special instructions before use.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P250 - Do not subject to grinding, shock, friction.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.
 P370+P380 - In case of fire: Evacuate area.
 P372 - Explosion risk in case of fire.
 P401 - Store in dry and well ventilated areas, in temperatures -30 °C to +40 °C.
 P501 - Dispose of contents/container to be in accordance with corresponding local regulations for disposal of packages and explosives.

Extra phrases :

: Explosives, as referred to in section 2.1 of Regulation (EC) No. 1272/2008, placed on the market with a view to obtaining an explosive or pyrotechnic effect shall be labelled and packaged in accordance with the requirements for explosives only.

2.3. Other hazards

Other hazards which do not result in classification :

: The mixture doesn't meet the criteria for classification as PBT or vPvB substances and mixtures.
 Physicochemical effect: Risk of explosion, an uncontrolled explosion may cause great physical damage.
 In the assembled detonator, the hazardous substances are enclosed in a metal case that cannot be disassembled. These substances can be released only by detonation in the form of post-detonation reaction products. The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

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SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Comments : Nonelectric assembled detonator contains also chemicals that are not classified as hazardous, and various other components, such as plastic tube, plug and other plastic components. These parts do not contain SVHC substances.

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Pentaerythritol tetranitrate, P.E.T.N.	(CAS-No.) 78-11-5 (EC-No.) 201-084-3 (EC Index-No.) 603-035-00-5 (REACH-no) 01-2119557827-23	≤ 18	Expl. 1.1, H201
FerroSilico-Zirconium (***)		≤ 7	Not classified
Lead diazide, lead azide substance listed as REACH Candidate	(CAS-No.) 13424-46-9 (EC-No.) 236-542-1 (EC Index-No.) 082-003-00-7 (REACH-no) 01-2119475503-38	≤ 2	Unst. Expl., H200 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Repr. 1A, H360Df STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Zirconium powder (pyrophoric) (*)	(CAS-No.) 7440-67-7 (EC-No.) 231-176-9 (EC Index-No.) 040-001-00-3	≤ 1	Water-react. 1, H260 Pyr. Sol. 1, H250

Comments : * The mixture is introduced in the market as a solid substance. The mixture is not in contact with air or water. The classification Water-react.1 H260 a Pyr. Sol. 1 H250 is not relevant for this mixture.
 *** The substance / mixture with occupational exposure limit.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures general : In the assembled detonator, the mixture is enclosed in a metal case that cannot be disassembled. If used in accordance with section 1.2, the exposition is not possible. The exposition can occur only in case of detonation in the form of post-detonation reaction products. Detonation may cause burns and injuries. In case of any suspicion, seek medical advice.

First-aid measures after inhalation : Interrupt the exposition, move the exposed person to the fresh air. Keep the person warm and at rest. If the symptoms of respiratory system irritation (e.g. heavy breathing) persist, look for the medical help.

First-aid measures after skin contact : In case of detonation, there is a risk of burns, general injuries and injuries caused by splinters. Seek medical advice.

First-aid measures after eye contact : In case of detonation, there is a risk of general injuries and injuries caused by splinters. Seek medical advice.

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First-aid measures after ingestion : Rinse mouth, seek medical advice.

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

Symptoms/effects after inhalation : In case of inhalation of post-detonation reaction products, an irritation of respiratory system and a headache may occur.
Symptoms/effects after skin contact : Injuries, burns.
Symptoms/effects after eye contact : Injuries, burns.
Symptoms/effects after ingestion : Not relevant.

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

No special means are stated.

If any health troubles appear or in case of doubt, please inform the doctor and provide the information from this safety sheet.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable extinguishing media : Fire in the product cannot be extinguished with any fire-fighting equipment as it is explosive material.
Unsuitable extinguishing media : Not stated.

5.2. Special hazards arising from the substance or mixture

Fire hazard : If a building containing the product is on fire, a high risk of explosion is involved. Perform an urgent evacuation of the building and its surroundings. Notify the Integrated Rescue System. Don't inhale the gasses of the fire because they contain heavy metals (lead). The combustion residues and contaminated extinguishing liquids must be disposed of according to valid regulations.

5.3. Advice for firefighters

Firefighting instructions : During the fire of the product, keep the safe distance, use suitable breathing protection (isolation device), or self-contained breathing apparatus.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

General measures : The measures to be taken in case of accidental leakage (e.g. traffic accident) depend on the scale of the accident and an expert opinion of a specialist.

6.1.1. For non-emergency personnel

Protective equipment : Warn away the trespassers. Remove possible sources of initiation and thermal agitation (open fire, electric sparks etc.). In case of risk of an explosion, evacuate the buildings and the surrounding area. Use appropriate means suitable for work to prevent contact with skin and eyes. Follow the direction in section 7 and 8.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Do not allow the mixture to enter into sewer, water system (underground water, surface water) or soil.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Pick up the spilled product mechanically using spark-free tools. Collect the product in approved and properly labelled containers. Disposal of damaged product may be performed only by an authorized person. Disposal of the contaminated material must be in accordance with section 13.

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6.4. Reference to other sections

See Section 8 and 13 of this safety data sheet.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Precautions for safe handling : Handle the products with increased care. Keep away from heat, sparks, open flame and hot surfaces. Protect from electrostatic discharge. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry and well ventilated areas in temperatures from -30 °C to +40 °C. Keep the package closed tightly. Storage room must be locked. Do not store together with drugs, foodstuffs, drinks and forage. . Store in accordance with local regulations for the storage of explosives.

7.3. Specific end use(s)

Borehole detonators for initiation of industrial explosives.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.1.1 National occupational exposure and biological limit values**

Lead diazide, lead azide (13424-46-9)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Inorganic lead and its compounds
IOEL TWA	0.15 mg/m ³
Regulatory reference	Directive 98/24/EC
EU - Biological Limit Value (BLV)	
Local name	Lead and its ionic compounds
BLV	70 µg/100ml Parameter: lead - Medium: blood - Notations: BBLV
Remark	Medical surveillance is carried out if: - exposure to a concentration of lead in air is greater than 0,075 mg/m ³ , calculated as a time-weighted average over 40 hours per week, or - a blood-lead level greater than 40 µg Pb/100 ml blood is measured in individual workers.
Regulatory reference	Directive 98/24/EC

Zirconium powder (pyrophoric) (7440-67-7)**Ireland - Occupational Exposure Limits**

Local name	Zirconium compounds (as Zr)
OEL TWA [1]	5 mg/m ³
OEL STEL	10 mg/m ³
Regulatory reference	Chemical Agents Code of Practice 2020

United Kingdom - Occupational Exposure Limits

Local name	Zirconium
WEL TWA (OEL TWA) [1]	5 mg/m ³ compounds (as Zr)



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Zirconium powder (pyrophoric) (7440-67-7)	
WEL STEL (OEL STEL)	10 mg/m ³ compounds (as Zr)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Follow the usual basic precautions for handling explosives. Avoid inhaling of gases after the detonation.

8.2.2. Personal protection equipment

Personal protective equipment:

Not necessary, if the product is used in accordance with section 1.2.

8.2.2.1. Eye and face protection

Eye protection:

Use protective glasses if needed.

8.2.2.2. Skin protection

Skin and body protection:

Use clothes suitable for work that do not accumulate the static charge (cotton).

Hand protection:

Wash your hands by warm water and soap after work and treat your skin by suitable repairation means.

8.2.2.3. Respiratory protection

Respiratory protection:

After detonation use the dust filter.

8.2.2.4. Thermal hazards

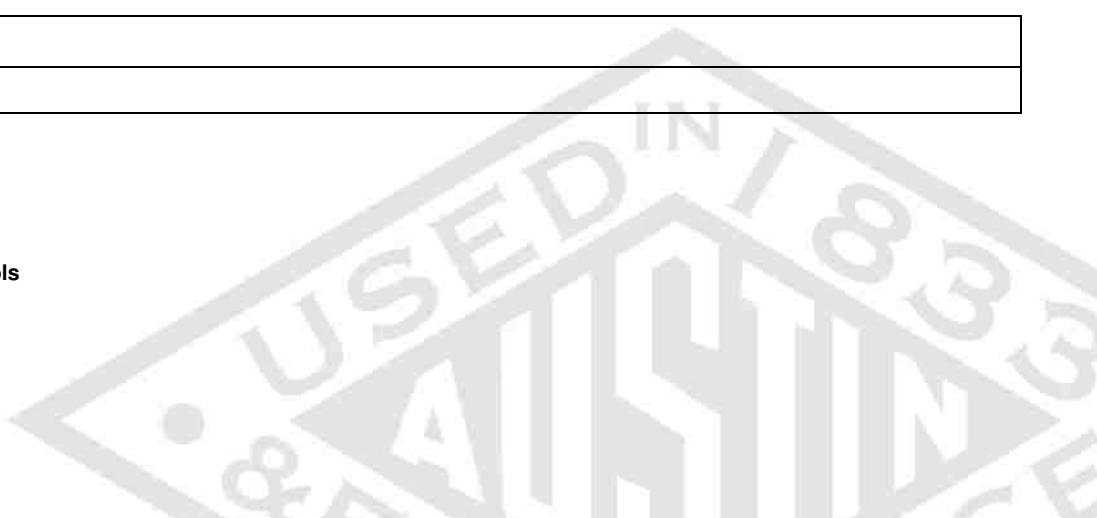
Thermal hazard protection:

Not relevant.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Not relevant.



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Other information:

Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	: Solid
Colour	: Black.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: 142 °C (PETN)
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Flammable
Explosive properties	: Velocity of detonation: 8400 m/s (PETN).
Explosion limits	: Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: 190 °C (PETN)
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information**9.2.1. Information with regard to physical hazard classes**

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is stable if used according to subsection 1.2 and if stored according to subsection 7.2.

10.2. Chemical stability

The product is stable if used according to subsection 1.2 and if stored according to subsection 7.2.

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10.3. Possibility of hazardous reactions

May detonate if heated to temperature above 100 °C. May malfunction upon long-term exposure of Al-shell to acidic environment.

10.4. Conditions to avoid

May detonate with impact or friction. May detonate if exposed to open fire and radiant heat.

10.5. Incompatible materials

Acids and alkalis.

10.6. Hazardous decomposition products

Detonation gasses containing lead, NOx.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute toxicity (oral) : Based on available data, the classification criteria are not met.
 Acute toxicity (dermal) : Based on available data, the classification criteria are not met.
 Acute toxicity (inhalation) : Based on available data, the classification criteria are not met.

Pentaerythritol tetranitrate, P.E.T.N. (78-11-5)

LD50 oral rat	1660 mg/kg (Database TOMES/RTECS, Vol. 75)
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Lead diazide, lead azide (13424-46-9)

TDL0, orally, sewer-rat, 14 weeks intermittently (mg/kg)	3920 mg/kg (Data according to the database TOMES/RTECS, Vol. 75)
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Skin corrosion/irritation : Based on available data, the classification criteria are not met.
 Serious eye damage/irritation : Based on available data, the classification criteria are not met.
 Respiratory or skin sensitisation : Based on available data, the classification criteria are not met.
 Germ cell mutagenicity : Based on available data, the classification criteria are not met.
 Carcinogenicity : Based on available data, the classification criteria are not met.

Reproductive toxicity : May damage the unborn child. Suspected of damaging fertility.

STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Lead diazide, lead azide (13424-46-9)

STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Based on available data, the classification criteria are not met.

11.2. Information on other hazards**11.2.1. Endocrine disrupting properties**

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

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11.2.2 Other information

Other information

: Lead and its compounds are partly excreted by kidneys, partly deposited inside body, especially bones. After long-term and high exposition, a chronic lead poisoning disease may develop, which is exhibited by failure of haemoglobin production, encephalopathy and also by paralysis of peripheral nerves. Lead and its compounds are known for their bioaccumulative effect and lead to irreversible health damage. Further lead and its compounds may damage unborn child and reproduction capability of humans. It is necessary to take this information into account in considering possibility of acquiring lead-poisoning disease caused by long term exposition (e.g. at work).

SECTION 12: Ecological information**12.1. Toxicity**

Hazardous to the aquatic environment, short-term (acute) : Based on available data, the classification criteria are not met.

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Pentaerythritol tetranitrate, P.E.T.N. (78-11-5)	
Bioconcentration factor (BCF REACH)	17 (SDS)
Partition coefficient n-octanol/water (Log Kow)	2.4 (SDS)

12.4. Mobility in soil

Pentaerythritol tetranitrate, P.E.T.N. (78-11-5)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.81 (SDS)

12.5. Results of PBT and vPvB assessment

Non-electric detonator
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

12.7. Other adverse effects

No additional information available



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SECTION 13: Disposal considerations**13.1. Waste treatment methods**

- Waste treatment methods : Dispose in accordance with corresponding regulations. Disposal of defect or damaged product is performed in accordance with instruction from manufacturer or in accordance with local regulation. Disposal may be performed only by the authorized person. For the classification of waste and its removal corresponding to the waste producer.
- Ecology - waste materials : Empty packages are handed over to person/company authorized to recycle packages. Contaminated packages are disposed in accordance with corresponding local regulations for disposal of packages and explosives.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 0360	UN 0360	Not applicable	Not applicable	UN 0360
14.2. UN proper shipping name				
DETONATOR ASSEMBLIES, NON-ELECTRIC	DETONATOR ASSEMBLIES, NON-ELECTRIC	Not applicable	Not applicable	DETONATOR ASSEMBLIES, NON-ELECTRIC
Transport document description (ADR)				
UN 0360 DETONATOR ASSEMBLIES, NON-ELECTRIC	UN 0360 DETONATOR ASSEMBLIES, NON-ELECTRIC, 1.1B	Not applicable	Not applicable	UN 0360 DETONATOR ASSEMBLIES, NON-ELECTRIC (1.1B)
14.3. Transport hazard class(es)				
1.1B	1.1B	Not applicable	Not applicable	1.1B
		Not applicable	Not applicable	
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Not applicable	Not applicable	Dangerous for the environment : No
No supplementary information available				

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Extra UN N°: Using the UN number depends on the type of package.

UN 0361

UN proper shipping name: DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting
Transport hazard class: 1.4B
Label number: 1.4

UN 0500

UN proper shipping name: DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting
Transport hazard class: 1.4S
Label number: 1.4

UN 0029

UN proper shipping name: DETONATORS, NON-ELECTRIC for blasting
Transport hazard class: 1.1B
Label number: 1

UN 0267

UN proper shipping name: DETONATORS, NON-ELECTRIC for blasting
Transport hazard class: 1.4B
Label number: 1.4

14.6. Special precautions for user**Overland transport**

No data available

Transport by sea

No data available

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

Contains no REACH substances with Annex XVII restrictions

Contains a substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: Lead diazide, Lead azide (EC 236-542-1, CAS 13424-46-9)

Contains no REACH Annex XIV substances

Substances subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals: Lead compounds (13424-46-9)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
1.1	Trade name	Modified	17.07.2019, 13.03.2020
1.1	UFI	Added	01.01.2021
1.1	Trade name	Modified	14.07.2021
2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	13.03.2020
2.2	Label elements	Modified	13.03.2020
8.1	Exposure controls	Modified	13.03.2020
10.4	Conditions to avoid	Modified	08.03.2019
1-16	SDS EU format according to COMMISSION REGULATION (EU) 2020/878	Modified	01.01.2021

Abbreviations and acronyms:	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
LD50	Median lethal dose
LC50	Median lethal concentration
NOEC	No-Observed Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
PNEC	Predicted No-Effect Concentration
PBT	Persistent Bioaccumulative Toxic
TRGS	Technical Rules for Hazardous Substances
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

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Other information : a) Instructions for training: Training for handling and use of explosives and detonators.
 b) Advised limitations of use: Restricted to professional users.
 c) Important data sources: MSDS of substances manufacturers, expert databases.
 d) Purpose of safety sheet: The aim of the safety data sheet is to enable users to take precautions relating to health and safety at work and environmental protection.
 e) The procedure for classifying the mixture according to EC Regulation no. 1272/2008: The conventional method.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Expl. 1.1	Explosives, Division 1.1
H200	Unstable explosives.
H201	Explosive; mass explosion hazard.
H250	Catches fire spontaneously if exposed to air.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Pyr. Sol. 1	Pyrophoric Solids, Category 1
Repr. 1A	Reproductive toxicity, Category 1A
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
Unst. Expl.	Explosives, Unstable explosives
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Expl. 1.1	H201	On basis of test data
Repr. 1A	H360Df	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Chronic 3	H412	Calculation method



NON-ELECTRIC DETONATOR

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

