Revision: 29.07.2014



Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date 29.07.2014

Version number 1

SECTION 1: Identification of the substance/mixture and of the company/

- · 1.1 Product identifier
- · Trade name: RS12

undertaking

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- · Application of the substance / the mixture Article for gun tubes
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier: NITROCHEMIE Wimmis AG Niesenstrasse 44 CH 3752 Wimmis
- Further information obtainable from:

Dr. Kai Tölle

kai.toelle@nitrochemie.com

Sicherheit und Umwelt Wimmis (SUW)

· 1.4 Emergency telephone number:

++41 33 228 1186 (Switzerland)

DOMESTIC NORTHAMERICA: 800-424-9300 INTERNATIONAL-CALL: 001-703-527-3887

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS01 exploding bomb

Expl. 1.3 H203 Explosive; fire, blast or projection hazard.

- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
- · Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- · 2.2 Label elements
- · Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:

E Explosive

- · Risk phrases:
- 2 Risk of explosion by shock, friction, fire or other sources of ignition.
- · Safety phrases:

15 Keep away from heat.

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60 This material and its container must be disposed of as hazardous waste.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable. · **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterization: Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.
- Dangerous components:

9004-70-0 Nitrocellulose

E R1-3 **⊘** Unst. Expl., H200

98%

Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- · General information:

Personal protection for the First Aider.

Take affected persons out of danger area and lay down.

- · After inhalation: Take affected persons into fresh air and keep quiet.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- Suitable extinguishing agents:

Water spray

Water

For safety reasons unsuitable extinguishing agents:

Carbon dioxide

Sand

Extinguishing powder

Foam

- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · **Protective equipment:** Wear self-contained respiratory protective device.

EU





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SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

Remove persons from danger area.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up: Pick up mechanically.
- 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Open and handle receptacle with care.
- · Information about fire and explosion protection:

Keep ignition sources away - Do not smoke.

Protect from heat.

Prevent impact and friction.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles: storage facility for explosives
- · Information about storage in one common storage facility:

only storage facility for explosives

pay attention to the compatibility group

- · Further information about storage conditions: Protect from heat and direct sunlight.
- · Storage class: 1
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- $\cdot \textit{Additional information about design of technical facilities:} \ \textit{No further data; see item 7.} \\$
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Wash hands before breaks and at the end of work.

Standarts of Personal Protective Equipment

Respiratory protection EN 136, 140, 149

Eye protection EN 166

Body protection EN 340, 463, 468, 943-1, 943-2

Protection of hands EN 374

Safety shoes EN-ISO 20345

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- · Respiratory protection: Not required.
- Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Nomex

antistatic gloves (Nomex) over disposable gloves (nitrile oder butylrubber)

Nitrile rubber, NBR

Butyl rubber, BR

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- For the permanent contact gloves made of the following materials are suitable: antistatic gloves (Nomex) over disposable gloves (nitrile or butylrubber)
- · For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Nitrile rubber, NBR Butyl rubber, BR

- · Eye protection: Safety glasses
- · Body protection: use antistatic protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physi	cal and chemical properties
· General Information	
· Appearance: Form:	Solid
Colour:	Grey
· Odour:	Characteristic
· Change in condition Melting point/Melting range:	
· Flash point:	-
Flammability (solid, gaseous):	Flammable.
· Ignition temperature:	ca. 170 °C
· Self-igniting:	Product is not selfigniting.
Danger of explosion:	sensitive to detonation blast (detonator) - Explosive with or withou conact with air Risk of explosion by shock, friction, fire or other sources of ignition.
Density:	see PLB
· Solubility in / Miscibility with	
water:	Insoluble.

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· 9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· 10.3 Possibility of hazardous reactions

Flammable.

Danger of explosion.

- · 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: Oxidiser
- · 10.6 Hazardous decomposition products:

Poisonous gases/vapours

Nitrogen oxides

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect. · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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- · European waste catalogue 160403
- · Uncleaned packaging:
- · Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14.1 UN-Number	
ADR, IMDG, IATA	UN0161
14.2 UN proper shipping name	
ADR	0161 TREIBLADUNGSPULVER
IMDG, IATA	POWDER, SMOKELESS
14.3 Transport hazard class(es)	
ADR	
13	
Class	1 (1.3C) Explosive substances and articles.
Label	1.3C
IMDG, IATA	
Class	1 Explosive substances and articles.
Label	$1.3\tilde{C}$
14.4 Packing group	
ADR, IMDG, IATA	II
14.5 Environmental hazards:	
=	No
14.5 Environmental hazards: Marine pollutant: 14.6 Special precautions for user	No Warning: Explosive substances and articles.
Marine pollutant: 14.6 Special precautions for user Danger code (Kemler):	Warning: Explosive substances and articles. 1
Marine pollutant: 14.6 Special precautions for user	Warning: Explosive substances and articles.
Marine pollutant: 14.6 Special precautions for user Danger code (Kemler): EMS Number: 14.7 Transport in bulk according to Ann	Warning: Explosive substances and articles. 1 F-B,S-Y ex II of
Marine pollutant: 14.6 Special precautions for user Danger code (Kemler):	Warning: Explosive substances and articles. 1 F-B,S-Y

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· UN "Model Regulation":

TLP is packes as UN0161, POWDER, SMOKELESS,

1.3C (1.3C), II

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:

E Explosive

· Risk phrases:

2 Risk of explosion by shock, friction, fire or other sources of ignition.

· Safety phrases:

15 Keep away from heat.

60 This material and its container must be disposed of as hazardous waste.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H200 Unstable explosives.

R1 Explosive when dry.

R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.

· Department issuing MSDS: Abteilung Sicherheit und Umweltschutz

· Contact:

Hr. Dr. Kai Tölle

e-mail: kai.toelle@nitrochemie.com

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

Expl. 1.3: Explosives, Division 1.3

Unst. Expl.: Explosives, Unstable explosives

* Data compared to the previous version altered.