

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

Printing date 27.09.2013

Version number 1

Revision: 27.09.2013

**1 Identification of the substance/mixture and of the company/undertaking**

- **Product identifier**
- **Trade name:** **RS20**
- **Article number:** PC 1802 (RS20)
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** Article for gun tubes
- **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)
- **Emergency telephone number:**  
++41 33 228 1186 (Switzerland)  
DOMESTIC NORTHAMERICA : 800-424-9300  
INTERNATIONAL-CALL: 001-703-527-3887

**2 Hazards identification**

- **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**



E; Explosive

R2: Risk of explosion by shock, friction, fire or other sources of ignition.

- **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.

- **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.

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- **Safety phrases:**
  - 15 Keep away from heat.
  - 48 Keep moist with water.
  - 60 This material and its container must be disposed of as hazardous waste.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

### 4 First aid measures

- **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.
- **Information for doctor:**
  - **Most important symptoms and effects, both acute and delayed** No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
  - Water spray
  - Water
- **For safety reasons unsuitable extinguishing agents:**
  - Carbon dioxide
  - Sand
  - Extinguishing powder
  - Foam
- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

\* **6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Keep away from ignition sources.  
Remove persons from danger area.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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.

\* **7 Handling and storage**

- **Handling:**
- **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.
- **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**
- **Specific end use(s)** No further relevant information available.

\* **8 Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.
- **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.
- **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

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*Protection of hands EN 374*
*Safety shoes EN-ISO 20345*

 · **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*
*Nitrile rubber, NBR*
*Butyl rubber, BR*
*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*
*Nomex*

 · **Penetration time of glove material**
*The exact break through 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

### \* 9 Physical and chemical properties

 · **Information on basic physical and chemical properties**

 · **General Information**

 · **Appearance:**
**Form:** Solid

**Colour:** Grey

 · **Odour:** -

 · **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 without contact with air  
 Risk of explosion by shock, friction, fire or other sources of ignition.

 · **Explosion limits:**
**Lower:** Not determined.

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<b>Upper:</b>	<i>Not determined.</i>
<b>· Density:</b>	-
<b>· Solubility in / Miscibility with water:</b>	<i>Slightly soluble.</i>
<b>· Other information</b>	<i>No further relevant information available.</i>

### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions**  
*Flammable.*  
*Danger of explosion.*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:** *Oxidiser*
- **Hazardous decomposition products:**  
*Poisonous gases/vapours*  
*Nitrogen oxides*

### 11 Toxicological information

- **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.*

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability** *No further relevant information available.*
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** *No further relevant information available.*
- **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*
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*
- **Other adverse effects** *No further relevant information available.*

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**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue 160403**
- **Uncleaned packaging:**
- **Recommendation:**  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

**14 Transport information**

- **UN-Number**  
· **ADR, IMDG, IATA** UN0161
- **UN proper shipping name**  
· **ADR** 0161 TREIBLADUNGSPULVER  
· **IMDG, IATA** POWDER, SMOKELESS
- **Transport hazard class(es)**
- **ADR**  
  
· **Class** 1 (1.3C) Explosive substances and articles.  
· **Label** 1.3C
- **IMDG, IATA**  
  
· **Class** 1 Explosive substances and articles.  
· **Label** 1.3C
- **Packing group**  
· **ADR, IMDG, IATA** II
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Warning: Explosive substances and articles.  
· **Danger code (Kemler):** 1  
· **EMS Number:** F-B,S-Y
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

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**· Transport/Additional information:****· ADR****· Tunnel restriction code** C5000D**· UN "Model Regulation":** UN0161, POWDER, SMOKELESS, 1.3C (1.3C), II**15 Regulatory information**

- **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.  
48 Keep moist with water.  
60 This material and its container must be disposed of as hazardous waste.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**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)

**· \* Data compared to the previous version altered.**