

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

Printing date 03.07.2013

Version number 1

Revision: 03.07.2013

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

- **Product identifier**
- **Trade name:** **RS50**
- **Article number:** PC 0254 (RS50)
- **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.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **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.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **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

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
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- **Risk phrases:**
 - 2 Risk of explosion by shock, friction, fire or other sources of ignition.
 - 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Safety phrases:**
 - 15 Keep away from heat.
 - 61 Avoid release to the environment. Refer to special instructions/safety data sheets.
- **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:**

CAS: 9004-70-0	Nitrocellulose  E R1-3  Unst. Expl., H200	94%
CAS: 21368-68-3 EINECS: 244-350-4	DL-bornan-2-one  Xi R36/37/38;  F R11  Flam. Sol. 2, H228;  Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	4%
CAS: 122-39-4 EINECS: 204-539-4	diphenylamine  T R23/24/25;  N R50/53 R33  Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331;  STOT RE 2, H373;  Aquatic Acute 1, H400; Aquatic Chronic 1, H410	1%

- **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:** Supply fresh air; consult doctor in case of complaints.
- **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.

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* **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.
- **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:**
 - Inform respective authorities in case of seepage into water course or sewage system.
 - 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.

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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:**

I22-39-4 diphenylamine

WEL	Short-term value: 20 mg/m ³ Long-term value: 10 mg/m ³
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· **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.

Standards 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

· **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**

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.

· **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 in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**

Nitrile rubber, NBR

Butyl rubber, BR

· **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:**

Butyl rubber, BR

Nitrile rubber, NBR

· **Eye protection:** Safety glasses

· **Body protection:** use antistatic protective work clothing

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9 Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	Solid
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.

- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not determined.

- **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.

- **Density:** Not determined.

- **Other information** No further relevant information available.

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:**

reducer

acid

Oxidiser

- **Hazardous decomposition products:** Nitrogen oxides

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

122-39-4 diphenylamine

Oral	LD50	1230 mg/kg (mouse)
		1120 mg/kg (rat)

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Dermal	LD50	>5000 mg/kg (rabbit)
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- **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:**

122-39-4 diphenylamine

EC50	4.76 mg/l (pho)
EC50/24h	2.3 mg/l (D1)
	1000 mg/l (psf)
IC50/72h	1.5 mg/l (desmodesmus subspicatus)
LC50/96h	3.79 mg/l (Pimephales promelas)

- **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.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
 Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
 Do not allow product to reach ground water, water course or sewage system, even in small quantities.
 Danger to drinking water if even extremely small quantities leak into the ground.
 Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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:** Disposal must be made according to official regulations.

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14 Transport information

· UN-Number	UN0161
· ADR, IMDG, IATA	
· UN proper shipping name	0161 TREIBLADUNGSPULVER
· ADR	POWDER, SMOKELESS
· IMDG, IATA	
· Transport hazard class(es)	
· ADR	
	
· Class	1 (1.3C) Explosive substances and articles.
· Label	1
· IMDG, IATA	
	
· Class	1 Explosive substances and articles.
· Label	1
· Packing group	II
· ADR, IMDG, IATA	
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Explosive substances and articles.
· Danger code (Kemler):	1
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	0
· UN "Model Regulation":	UN0161, POWDER, SMOKELESS, 1.3C (1), II

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to EU guidelines:
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- Code letter and hazard designation of product:
E Explosive

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52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· Safety phrases:

- 15 Keep away from heat.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.

· National regulations:

Class	Share in %
I	0.7

- 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.
H228 Flammable solid.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
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.
- R1 Explosive when dry.
R11 Highly flammable.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R3 Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R33 Danger of cumulative effects.
R36/37/38 Irritating to eyes, respiratory system and skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- 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)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
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

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ELINCS: European List of Notified Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

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