

according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

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

- · 1.1 Product identifier
- · Trade name: DINITROL RC900 Aerosol
- · 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
- Consumer uses: Private households / general public / consumers SU21
- Professional uses: Public domain (administration, education, SII22 entertainment, services, craftsmen)
- Product category
  - Coatings and paints, thinners, paint removers
  - PC14 Metal surface treatment products, including galvanic and electroplating products
- · Process category
  - PROC7 Industrial spraying
  - PROC11 Non industrial spraying
- Environmental release category
  - ERC8c Wide dispersive indoor use resulting in inclusion into or onto a matrix
  - ERC8f Wide dispersive outdoor use resulting in inclusion into or onto a matrix
- · Application of the substance / the preparation
  - Coating material
  - rust neutraliser and epoxy primer
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:
  - DINOL GmbH
  - Pyrmonter Strasse 76
  - DE 32676 Lügde
  - Tel. +49/ (0)5281 98298 -0
  - Fax +49/(0)528198298-60
- · Further information obtainable from:
  - Tel. +49 (0) 5281 98 298 0, Fax. +49 (0) 5281 98 298 60
  - Ansprechpartner: Entwicklung
  - E-Mail: msds@dinol.com
- · 1.4 Emergency telephone number:
  - Toxikologisches Informationszentrum
  - CH 8030 Zürich, Freiestrasse 16
  - Tel. +41/ 044 251 51 51
- Notruf CH : 145
- Giftnotrufzentrale 030 19240
- EUROPÄISCHE NOTRUFNR.: 112 Notruf - BE - : 070 -245 245
- Notruf GB : 844 892 0111
- Notruf IE : + 353 1 837 9964 (medical professionals); + 353 1 809

Notruf - D - :

- 2166 (public)
- Notruf IS : + 354 543 22 22
- Notruf JP : + 81 72 727 2499; + 81 29 852 9999
- Notruf NZ : 0800 764 766
- Notruf PK : + 92 21 9920509; + 92 21 35686535
- Notruf PH : + 632 524 10 78; + 632 544 84 00; local 2311 Notruf SA : + 966 146 77 353, + 966 3 8155 646; Ext. 280, 282,
- 283
- Notruf TH : + 66 201 1086
- Notruf UAE : 800 424

(Contd. on page 2)



according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

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(Contd. of page 1)

#### SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

 $\cdot$  Classification according to Directive 67/548/EEC or Directive 1999/45/EC

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Xi; Irritant

R36: Irritating to eyes.

\*

F+; Extremely flammable

R12: Extremely flammable.

R67: Vapours may cause drowsiness and dizziness.

• 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.

Warning! Pressurized container.

· 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:





Xi Irritant

F+ Extremely flammable

- · Risk phrases:
  - 12 Extremely flammable.
  - 36 Irritating to eyes.
  - 67 Vapours may cause drowsiness and dizziness.
- · Safety phrases:
  - 2 Keep out of the reach of children.
  - 16 Keep away from sources of ignition No smoking.
  - 23 Do not breathe vapour/spray.
  - 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
  - 46 If swallowed, seek medical advice immediately and show this container or label.
  - 51 Use only in well-ventilated areas.
- · Special labelling of certain preparations:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Buildup of explosive mixtures possible without sufficient ventilation.

· Classification in accordance with Directive 75/324/EEC:

Extremely flammable

(Contd. on page 3)



according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

(Contd. of page 2)

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- $\cdot$  PBT: Not applicable.
- $\cdot$   $\overline{vPvB}$ : Not applicable.

## SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterization: Mixtures
- · Description:

Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49-XXXX	acetone  Xi R36;	25-50%
CAS: 108-10-1 EINECS: 203-550-1 Reg.nr.: 01-2119473980-30-XXXX	SE 3, H336  4-methylpentan-2-one  Xn R20;	2.5-10%
CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35-XXXX	1-methoxy-2-propanol R10-67 Flam. Liq. 3, H226 STOT SE 3, H336	2.5-10%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25-XXXX	propan-2-ol  Xi R36;	2.5-10%
CAS: 10024-97-2 EINECS: 233-032-0	dinitrogen oxide O R7-8 O Ox. Gas 1, H270 Acute Tox. 1, H330 Press. Gas, H280	2.5-10
CAS: 64-18-6 EINECS: 200-579-1 Reg.nr.: 01-2119491174-37-XXXX	formic acid C R35 Skin Corr. 1A, H314	≤2.0%
CAS: 112-34-5 EINECS: 203-961-6 Reg.nr.: 01-2119475104-44-XXXX  · Additional information:	2-(2-butoxyethoxy)ethanol Xi R36 Eye Irrit. 2, H319	≤2.0%

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



according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

(Contd. of page 3)

#### SECTION 4: First aid measures

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

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

Position and transport stably in side position.

Seek medical treatment.

· After inhalation:

Supply fresh air; consult doctor in case of complaints.

- · After skin contact: If skin irritation continues, consult a doctor.
- After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

A person vomiting while laying on their back should be turned onto their side.

 $\cdot$  4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

Dizziness

Dizziness

· <u>4.3 Indication of any immediate medical attention and special treatment needed</u>

No further relevant information available.

## SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture
  In case of fire, the following can be released:
  Carbon monoxide (CO)
- 5.3 Advice for firefighters
- · Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear self-contained respiratory protective device.

· Additional information Cool endangered receptacles with water spray.

#### SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

• 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

• 6.3 Methods and material for containment and cleaning up: Send for recovery or disposal in suitable receptacles.

(Contd. on page 5)



according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

(Contd. of page 4)

Ensure adequate ventilation.

· 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
Store in cool, dry place in tightly closed receptacles.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· Information about fire - and explosion protection:

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

· Information about storage in one common storage facility:

Store away from foodstuffs.

· Further information about storage conditions:

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

Keep container tightly sealed.

Do not seal receptacle gas tight.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· 7.3 Specific end use(s) No further relevant information available.

#### SECTION 8: Exposure controls/personal protection

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

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WEL (Great Britain) Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm Short-term value:  $2375 \text{ mg/m}^3$ , 1000 ppmNES (Australia) Long-term value: 1185 mg/m³, 500 ppm WES (New Zealand) Short-term value: 2375 mg/m³, 1000 ppm Long-term value: 1185 mg/m³, 500 ppm

(Contd. on page 6)



according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

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108-10-1 4-methylper	
WEL (Great Britain)	Short-term value: 416 mg/m³, 100 ppm Long-term value: 208 mg/m³, 50 ppm Sk, BMGV
NES (Australia)	Short-term value: 307 mg/m³, 75 ppm Long-term value: 205 mg/m³, 50 ppm
WES (New Zealand)	Short-term value: 307 mg/m³, 75 ppm Long-term value: 205 mg/m³, 50 ppm
107-98-2 1-methoxy-2	-propanol
WEL (Great Britain)	Short-term value: 560 mg/m³, 150 ppm Long-term value: 375 mg/m³, 100 ppm Sk
NES (Australia)	Short-term value: 553 mg/m³, 150 ppm Long-term value: 369 mg/m³, 100 ppm
WES (New Zealand)	Short-term value: 553 mg/m³, 150 ppm Long-term value: 369 mg/m³, 100 ppm
67-63-0 propan-2-ol	
WEL (Great Britain)	Short-term value: 1250 mg/m³, 500 ppm Long-term value: 999 mg/m³, 400 ppm
NES (Australia)	Short-term value: 1230 mg/m³, 500 ppm Long-term value: 983 mg/m³, 400 ppm
WES (New Zealand)	Short-term value: 1230 mg/m³, 500 ppm Long-term value: 983 mg/m³, 400 ppm
10024-97-2 dinitroge	en oxide
WEL (Great Britain)	Long-term value: 183 mg/m³, 100 ppm
NES (Australia)	Long-term value: 45 mg/m³, 25 ppm
WES (New Zealand)	Long-term value: 45 mg/m³, 25 ppm
64-18-6 formic acid	
WEL (Great Britain)	Long-term value: 9.6 mg/m³, 5 ppm
NES (Australia)	Short-term value: 19 mg/m³, 10 ppm Long-term value: 9.4 mg/m³, 5 ppm
WES (New Zealand)	Short-term value: 19 mg/m³, 10 ppm Long-term value: 9.4 mg/m³, 5 ppm
112-34-5 2-(2-butoxy	rethoxy)ethanol
WEL (Great Britain)	Short-term value: 101.2 mg/m³, 15 ppm Long-term value: 67.5 mg/m³, 10 ppm
Ingredients with bid	ological limit values:
108-10-1 4-methylper	itan-2-one
BMGV (Great Britain)	20 µmol/L Medium: urine Sampling time: post shift Parameter: 4-methylpentan-2-one

· Additional information:

The lists valid during the making were used as basis.

- · 8.2 Exposure controls
- Personal protective equipment:
   General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.

(Contd. on page 7)



according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

(Contd. of page 6)

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Respiratory protection:

Short term filter device:

Filter A/P2

Filter AX

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Use suitable respiratory protective device in case of insufficient ventilation.

· Protection of hands:

Check the permeability prior to each anewed use of the glove. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

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.

· 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.

· Eye protection:



Tightly sealed goggles

· Body protection: Solvent resistant protective clothing

#### SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Aerosol

Colour:
 Odour:
 Odour threshold:
 Amber coloured
Characteristic
Not determined.

• pH-value at 20 °C (68 °F): 4.8

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 55 °C (131 °F)

(Contd. on page 8)



## according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

	(Contd. of page 7)
· Flash point:	13 °C (55 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	270 °C (518 °F)
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits: Lower: Upper:	2.6 Vol % 13.0 Vol %
· Vapour pressure at 20 °C (68 °F):	233 hPa (175 mm Hg)
<ul> <li>Density at 20 °C (68 °F):</li> <li>Relative density</li> <li>Vapour density</li> <li>Evaporation rate</li> </ul>	1 g/cm³ (8.345 lbs/gal) Not determined. Not determined. Not applicable.
· <u>Solubility in / Miscibility with</u> <u>water:</u>	Not miscible or difficult to mix.
<ul> <li>Partition coefficient (n-octanol/ water):</li> </ul>	Not determined.
· Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
· <u>Solvent content:</u> Organic solvents: <u>VOC (EC)</u>	64.0 % 64.03 %
Solids content: • 9.2 Other information	0.8 % No further relevant information available.

#### SECTION 10: Stability and reactivity

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

No decomposition if used and stored according to specifications.

- · 10.3 Possibility of hazardous reactions
  - No dangerous reactions known.

Danger of bursting.

- · 10.4 Conditions to avoid No further relevant information available.
- $\cdot$  10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:
  - No dangerous decomposition products known.

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according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

(Contd. of page 8)

#### SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity:

• LD/LC50 val	· LD/LC50 values relevant for classification:				
67-64-1 ace	67-64-1 acetone				
Oral	LD50	5800 mg/kg (rat)			
Dermal	LD50	20000 mg/kg (rabbit)			
108-10-1 4-	108-10-1 4-methylpentan-2-one				
Oral	LD50	2080 mg/kg (rat)			
Dermal	LD50	16000 mg/kg (rab)			
Inhalative	LC50/4 h	8.3-16.6 mg/l (rat)			
107-98-2 1-methoxy-2-propanol					
Oral	LD50	5660 mg/kg (rat)			
Dermal	LD50	13000 mg/kg (rabbit)			
Inhalative	LC50/4 h	6 mg/l (rat)			
67-63-0 propan-2-ol					
Oral	LD50	5045 mg/kg (rat)			
Dermal	LD50	12800 mg/kg (rabbit)			
Inhalative	LC50/4 h	30 mg/l (rat)			
10024-97-2 dinitrogen oxide					
Inhalative	LC50/4 h	1.06 mg/l (rat)			
64-18-6 formic acid					
Oral	LD50	1100 mg/kg (rat)			
112-34-5 2-	112-34-5 2-(2-butoxyethoxy)ethanol				
Oral	LD50	5660 mg/kg (rat)			
Dermal	LD50	4000 mg/kg (rabbit)			

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version: Irritant

# SECTION 12: Ecological information

- · 12.1 Toxicity
- $\cdot$   $\underline{\textit{Aquatic toxicity:}}$  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.

(Contd. on page 10)

Page 10/12



# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

(Contd. of page 9)

- · Additional ecological information:
- · General notes:

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

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- $\cdot$  PBT: Not applicable.
- · vPvB: Not applicable.
- $\cdot$  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.

- Uncleaned packaging:
- · Recommendation:

Disposal must be made according to official regulations.

### SECTION 14: Transport information · 14.1 UN-Number · ADR, IMDG, IATA UN1950 · 14.2 UN proper shipping name ADR 1950 AEROSOLS • IMDG AEROSOLS · IATA AEROSOLS, flammable 14.3 Transport hazard class(es) ADR· Class 5F Gases. Label 2.1 IMDG, IATA 2.1 · Class · Label 2.1 · 14.4 Packing group Void · ADR, IMDG, IATA • 14.5 Environmental hazards: • Marine pollutant: No



according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

(Contd. of page 10) 14.6 Special precautions for user Warning: Gases. · Danger code (Kemler): • EMS Number: F-D,S-U · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport/Additional information: • ADR · Limited quantities (LQ) 1L· Transport category · Tunnel restriction code UN1950, AEROSOLS, 2.1 • UN "Model Regulation":

# SECTION 15: Regulatory information

- 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
  - H225 Highly flammable liquid and vapour.
  - H226 Flammable liquid and vapour.
  - H270 May cause or intensify fire; oxidiser.
  - H280 Contains gas under pressure; may explode if heated.
  - H314 Causes severe skin burns and eye damage.
  - H319 Causes serious eye irritation.
  - H330 Fatal if inhaled.
  - H332 Harmful if inhaled.
  - H335 May cause respiratory irritation.
  - H336 May cause drowsiness or dizziness.
  - R10 Flammable.
  - R11 Highly flammable.
  - R20 Harmful by inhalation.
  - R35 Causes severe burns.
  - R36 Irritating to eyes.
  - R36/37 Irritating to eyes and respiratory system.
  - R66 Repeated exposure may cause skin dryness or cracking.
  - R67 Vapours may cause drowsiness and dizziness.
  - R7 May cause fire.
  - R8 Contact with combustible material may cause fire.
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Aerosol 1 H222 Extremely flammable aerosol.

(Contd. on page 12)

Page 12/12



## Safety data sheet

#### according to 1907/2006/EC, Article 31

Printing date 11.08.2013 Version number 3 Revision: 11.08.2013

Trade name: DINITROL RC900 Aerosol

(Contd. of page 11)



Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

· Department issuing MSDS: Abteilung Produktsicherheit

· Contact: siehe Seite 1 / see page 1

· 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

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· \* Data compared to the previous version altered.

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