

according to Regulation (EC) No 1907/2006

# **DINITROL RC 900 Spray**

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

### 1.1. Product identifier

DINITROL RC 900 Spray

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

## Use of the substance/mixture

Anti-corrosive coating

# 1.3. Details of the supplier of the safety data sheet

Company name: DINOL GmbH

 Street:
 Pyrmonter Strasse 76

 Place:
 D-32676 Luegde

 Telephone:
 + 49 (0) 5281 982980

Telephone: + 49 (0) 5281 982980 Telefax: + 49 (0) 5281 9829860

e-mail: msds@dinol.com

Contact person: Labor

Responsible Department: msds@dinol.com

1.4. Emergency telephone Giftnotruf Berlin: +49 30 30686 700 (Beratung in Deutsch und Englisch)

number:

### **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

## Regulation (EC) No. 1272/2008

Hazard categories: Aerosol: Aerosol 1

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

Causes serious eye irritation.

May cause drowsiness or dizziness.

### 2.2. Label elements

# **Regulation (EC) No. 1272/2008**

Signal word: Danger

Pictograms:





### **Hazard statements**

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H319 Causes serious eye irritation.H336 May cause drowsiness or dizziness.

### **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.



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P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

## Additional advice on labelling

The classification of the aerosol was carried out according to EC 1272/2008, Annex 1, point 1.1.3.7.

#### 2.3. Other hazards

No information available.

## **SECTION 3: Composition/information on ingredients**

### 3.2. Mixtures

### **Hazardous components**

CAS No	Chemical name				
	EC No	Index No	REACH No		
	GHS Classification	-	•		
115-10-6	dimethyl ether			25 - 50 %	
	204-065-8		01-2119472128-37		
	Flam. Gas 1, Liquefied gas; H220	) H280			
67-64-1	acetone; propan-2-one; propanor	ne		10 - < 20 %	
	200-662-2	606-001-00-8			
	Flam. Liq. 2, Eye Irrit. 2, STOT S	E 3; H225 H319 H336 EUH0	66		
107-98-2	1-methoxy-2-propanol; monoprop	ylene glycol methyl ether		2,5 - 10 %	
	203-539-1	603-064-00-3	01-2119457435-35		
	Flam. Liq. 3, STOT SE 3; H226 H	1336	•		
108-65-6	2-methoxy-1-methylethyl acetate	2,5 - 10 %			
	203-603-9	607-195-00-7			
	Flam. Liq. 3; H226				
67-63-0	propan-2-ol; isopropyl alcohol; iso	2,5 - < 10 %			
	200-661-7	603-117-00-0			
	Flam. Liq. 2, Eye Irrit. 2, STOT S	E 3; H225 H319 H336			
112-34-5	2-(2-butoxyethoxy)ethanol; diethy	2,5 - < 10 %			
	203-961-6	603-096-00-8			
	Eye Irrit. 2; H319	•	•		
64-18-6	Formic acid	< 2 %			
	200-579-1		01-2119491174-37		
	Acute Tox. 3, Acute Tox. 4, Skin Corr. 1C; H331 H302 H314				
	!				

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

# **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

#### **General information**

In all cases of doubt, or when symptoms persist, seek medical advice.

#### After inhalation

Remove casualty to fresh air and keep warm and at rest.

If unconscious place in recovery position and seek medical advice.



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#### After contact with skin

Change contaminated clothing.

Wash with plenty of water/Soap.

If skin irritation occurs: Get medical advice/attention.

#### After contact with eves

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. In case of eye irritation consult an ophthalmologist.

### After ingestion

If swallowed, rinse mouth with water (only if the person is conscious).

Call a physician immediately.

Put victim at rest, cover with a blanket and keep warm.

Do NOT induce vomiting.

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

Nausea, Drowsiness, Headache,

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

No information available.

# **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

### Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO2), Extinguishing powder, Water fog.

# Unsuitable extinguishing media

High power water jet.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products: Danger of serious damage to health by prolonged exposure.

Do not inhale explosion and combustion gases. Use appropriate respiratory protection.

# 5.3. Advice for firefighters

Use water spray jet to protect personnel and to cool endangered containers.

### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

## **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wear personal protection equipment.

Avoid contact with skin, eyes and clothes.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

# 6.3. Methods and material for containment and cleaning up

Prevent spread over a wide area (e.g. by containment or oil barriers).

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

# 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13



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### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

### Advice on safe handling

Handle and open container with care.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

# Advice on protection against fire and explosion

Take precautionary measures against static discharges.

Do not spray on naked flames or any incandescent material.

Keep away from sources of ignition - No smoking.

Heating causes rise in pressure with risk of bursting.

# 7.2. Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Do not keep the container sealed. Keep container dry.

Keep away from heat. Protect against direct sunlight.

### Further information on storage conditions

Keep container tightly closed. Do not keep the container sealed. Store in a cool dry place. Protect from sunlight.

## 7.3. Specific end use(s)

No information available.

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

### 8.1. Control parameters

# Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
107-98-2	1-Methoxypropan-2-ol	100	375		TWA (8 h)	WEL
		150	560		STEL (15 min)	WEL
108-65-6	1-Methoxypropyl acetate	50	274		TWA (8 h)	WEL
		100	548		STEL (15 min)	WEL
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	WEL
		15	101.2		STEL (15 min)	WEL
67-64-1	Acetone	500	1210		TWA (8 h)	WEL
		1500	3620		STEL (15 min)	WEL
115-10-6	Dimethyl ether	400	766		TWA (8 h)	WEL
		500	958		STEL (15 min)	WEL
64-18-6	Formic acid	5	9.6		TWA (8 h)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

## 8.2. Exposure controls



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### Appropriate engineering controls

Provide adequate ventilation.

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn

### Protective and hygiene measures

Keep away from food, drink and animal feedingstuffs.

When using do not eat or drink.

Wash hands before breaks and after work.

Avoid contact with skin and eyes.

Remove contaminated, saturated clothing immediately.

Do not breathe gas/vapour/aerosol.

### Eye/face protection

Eye glasses with side protection (DIN EN 166)

#### Hand protection

Tested protective gloves must be worn (EN ISO 374):

FKM (fluoro rubber), Breakthrough time (maximum wearing time):

PVA (Polyvinyl alcohol), Breakthrough time (maximum wearing time):

NBR (Nitrile rubber), Breakthrough time (maximum wearing time):

Butyl caoutchouc (butyl rubber), Breakthrough time (maximum wearing time):

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves

mentioned above together with the supplier of these gloves.

Protective gloves have to be replaced at the first sign of deterioration.

Protect skin by using skin protective cream.

#### Skin protection

Wear anti-static footwear and clothing

# **Respiratory protection**

Work in well-ventilated zones or use proper respiratory protection. gas filtering equipment (EN 141)., Filter material/medium: A/P2 / AX

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical state: Aerosol
Colour: amber
Odour: characteristic
Odour threshold: not determined

pH-Value (at 20 °C): 4,8

# Changes in the physical state

Melting point:

Initial boiling point and boiling range:

Flash point:

Sustaining combustion:

not determined

82 °C

13 °C

No data available

**Flammability** 

Solid: not applicable
Gas: not applicable



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**Explosive properties** 

not determined

Lower explosion limits: 2,6 vol. %
Upper explosion limits: 18,6 vol. %
Ignition temperature: 235 °C

**Auto-ignition temperature** 

Solid: not applicable
Gas: not applicable
Decomposition temperature: not determined

Oxidizing properties

not determined

Vapour pressure: 5200 hPa

(at 20 °C)

Density (at 20 °C): 0,9 g/cm³

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

not determined

Partition coefficient:

Viscosity / dynamic:

Not determined

Niscosity / kinematic:

Not determined

Vapour density:

Not determined

Evaporation rate:

Not determined

For a content:

Not determined

Not determined

Not determined

9.2. Other information

Solid content: 1,5%

No information available.

## **SECTION 10: Stability and reactivity**

# 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

## 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

# 10.3. Possibility of hazardous reactions

No known hazardous reactions.

### 10.4. Conditions to avoid

Keep away from heat. Ignition hazard.

### 10.5. Incompatible materials

No information available.

# 10.6. Hazardous decomposition products

Carbon monoxide

# **SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects



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## **Acute toxicity**

Based on available data, the classification criteria are not met.

#### **ATEmix tested**

Dose Species Source

LD50, oral 61315 mg/kg Rat

LC50, inhalation (aerosol) (4 h) 50,9 mg/l

CAS No	Chemical name						
	Exposure route	Dose		Species	Source	Method	
115-10-6	dimethyl ether						
	inhalation (4 h) vapour	LC50	308 mg/l	Rat			
67-64-1	acetone; propan-2-one;	propanone					
	oral	LD50 mg/kg	5800	Rat	RTECS		
	dermal	LD50 mg/kg	20000	Rabbit	IUCLID		
	inhalation (4 h) vapour	LC50	76 mg/l	Rat			
107-98-2	1-methoxy-2-propanol; n	nonopropyler	ne glycol me	thyl ether			
	oral	LD50 mg/kg	> 5000	Rat	IUCLID		
	dermal	LD50 mg/kg	>2000	Rabbit			
108-65-6	2-methoxy-1-methylethy	2-methoxy-1-methylethyl acetate					
	oral	LD50 mg/kg	8532	Rat	RTECS		
	dermal	LD50 mg/kg	7500	Rabbit			
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether						
	oral	LD50 mg/kg	5660	Rat			
	dermal	LD50 mg/kg	4120	Rabbit			
64-18-6	Formic acid						
	oral	LD50 mg/kg	1100	Rat			
	inhalation (4 h) vapour	LC50	3 mg/l				
	inhalation aerosol	ATE	0,5 mg/l				

## Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

# Sensitising effects

Based on available data, the classification criteria are not met.

### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

### STOT-single exposure

May cause drowsiness or dizziness. (acetone; propan-2-one; propanone)

# STOT-repeated exposure

Based on available data, the classification criteria are not met.



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#### **Aspiration hazard**

Based on available data, the classification criteria are not met.

### **Further information**

There are no data available on the preparation/mixture itself.

# **SECTION 12: Ecological information**

## 12.1. Toxicity

CAS No	AS No Chemical name						
	Aquatic toxicity	Dose	[h]   [d] Species	Source	Method		
67-64-1	acetone; propan-2-one; propanone						
	Acute fish toxicity	LC50 5540 mg/l	96 h Onchorhynchus mykiss				
	Acute crustacea toxicity	EC50 6100 mg/l	48 h Daphnia magna				
107-98-2	1-methoxy-2-propanol; me	onopropylene glycol met	hyl ether				
	Acute fish toxicity	LC50 4600 - 10000 mg/l	96 h Leuciscus idus	IUCLID			
	Acute algae toxicity	ErC50 > 1000 mg/l	72 h Selenastrum capricornutum				
	Acute crustacea toxicity	EC50 > 500 mg/l	48 h Daphnia magna	IUCLID			
108-65-6	2-methoxy-1-methylethyl acetate						
	Acute fish toxicity	LC50 161 mg/l	96 h Pimephales promelas				
	Acute crustacea toxicity	EC50 408 mg/l	48 h Daphnia magna				
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether						
	Acute algae toxicity	ErC50 > 100 mg/l	Scenedesmus sp.				
	Acute crustacea toxicity	EC50 > 100 mg/l	48 h Daphnia magna				

## 12.2. Persistence and degradability

There are no data available on the mixture itself.

# 12.3. Bioaccumulative potential

There are no data available on the mixture itself.

### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
115-10-6	dimethyl ether	0,1
67-64-1	acetone; propan-2-one; propanone	-0,24
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether	-0,437
108-65-6	2-methoxy-1-methylethyl acetate	0,43
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	0,56 (25°C)

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

not applicable

### 12.6. Other adverse effects

No information available.

### **Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.



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### **SECTION 13: Disposal considerations**

### 13.1. Waste treatment methods

### **Disposal recommendations**

Dispose of waste according to applicable legislation. Do not mix with other wastes. List of proposed waste codes/waste designations in accordance with EWC:

### List of Wastes Code - residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and

discarded chemicals; gases in pressure containers (including halons) containing hazardous

substances; hazardous waste

## List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by

hazardous substances; hazardous waste

#### Contaminated packaging

Remove according to the regulations.

## **SECTION 14: Transport information**

# Land transport (ADR/RID)

14.1. UN number:UN195014.2. UN proper shipping name:AEROSOLS

14.3. Transport hazard class(es):214.4. Packing group:-Hazard label:2 1



Classification code: 5F

Special Provisions: 190 327 344 625

Limited quantity: 1 L
Transport category: 2
Tunnel restriction code: D

# Other applicable information (land transport)

E0

# Marine transport (IMDG)

**14.1. UN number:** UN 1950 **14.2. UN proper shipping name:** AEROSOLS

14.3. Transport hazard class(es):2.114.4. Packing group:-Hazard label:2.1



Marine pollutant:

Special Provisions: 63, 190, 277, 327, 344, 959

Limited quantity: 1000 mL Excepted quantity: E0



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EmS: F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** UN1950

**14.2. UN proper shipping name:** AEROSOLS, flammable

14.3. Transport hazard class(es):2.114.4. Packing group:-Hazard label:2.1



Special Provisions: A145 A167 A802

Limited quantity Passenger: 30 kg G

IATA-packing instructions - Passenger:203IATA-max. quantity - Passenger:75 kgIATA-packing instructions - Cargo:203IATA-max. quantity - Cargo:150 kg

### Other applicable information (air transport)

FΩ

Passenger-LQ: Y203

## 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

## 14.6. Special precautions for user

Warning: Gases under pressure

# 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

# Other applicable information

Stowage Code:

SW1 Protected from sources of heat.

SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre:Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

## Segregation Code:

SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

## **SECTION 15: Regulatory information**

## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

## **EU** regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 55

Information according to 2012/18/EU P3a FLAMMABLE AEROSOLS

(SEVESO III):

### **Additional information**

Observe in addition any national regulations!

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work



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### **National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or

nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

#### **SECTION 16: Other information**

#### Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,7,8,9,11.

#### Abbreviations and acronyms

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 LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

### Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

	<u> </u>
Classification	Classification procedure
Aerosol 1; H222-H229	On basis of test data
Eye Irrit. 2; H319	Bridging principle "Aerosols"
STOT SE 3; H336	Bridging principle "Aerosols"

### Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.

H331 Toxic if inhaled.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

#### **Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)