

DINITROL 4010 Spray

Revision date: 19.12.2023

Product code: 21703

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1. Identification

Product identifier

DINITROL 4010 Spray

Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Anti-corrosive coating

Uses advised against

No further relevant information available.

Details of the supplier of the safety data sheet

Manufacturer

Company name: DINOL GmbH
Street: Pyrmonter Strasse 76
Place: D-32676 Luegde
Telephone: + 49 (0) 5281 982980
E-mail: msds@dinol.com
Contact person: Labor
Responsible Department: msds@dinol.com

Telefax: + 49 (0) 5281 9829860

Supplier

Company name: DINOL U.S. Inc.
Street: 8500 Cotter Street, Lewis Center
Place: USA-43035 Ohio
Telephone: 740-548-1656
E-mail: info@dinolus.com
Internet: www.dinol.com

Telefax: 740-548-1657

Emergency telephone number: 3E Company Emergency +1-866-404-4230

2. Hazard identification

Classification of the substance or mixture

WHMIS 2015

Aerosol: Aerosol 1
Gases under pressure: Compressed gas
Aspiration hazard: Asp. Tox. 1
Respiratory or skin sensitization: Skin Sens. 1B
Specific target organ toxicity - single exposure: STOT SE 3 (narcotic effects)
Specific target organ toxicity - repeated exposure: STOT RE 1

Label elements

WHMIS 2015

Signal word: Danger

Pictograms:



Hazard statements

Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May be fatal if swallowed and enters airways.
May cause an allergic skin reaction.

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May cause drowsiness or dizziness.

Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Do not breathe dust/fume/gas/mist/vapours/spray.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

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

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

Do not pierce or burn, even after use.

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of Water and soap.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Get medical advice/attention if you feel unwell.

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

Store locked up.

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.

Other hazards

No information available.

3. Composition/information on ingredients

Mixtures

Hazardous components

CAS No	Chemical name	Quantity
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	10 - < 30% (*)
1174921-73-3	Hydrocarbons, C9-10, <2% aromatics	10 - < 30% (*)
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	10 - < 30% (*)
61789-86-4	calcium sulfonate	3 - < 7% (*)
	calcium bis (di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate)	1 - < 5% (*)

(*) The actual concentration is withheld as a trade secret.

Further Information

Hydrocarbons meet the requirements for not being classified as carcinogenic (<0,1% benzene alt<3% (w/w)

DMSO extract (IP 346)).

4. First-aid measures

Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary. If unconscious but breathing normally, place in recovery position and seek medical advice.

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After contact with skin

Wash with plenty of water/Soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting. Call a physician immediately.

Most important symptoms and effects, whether acute or delayed

Disorientation Nausea, Dizziness, Headache.

Indication of immediate medical attention and special treatment needed

No further relevant information available.

5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

High power water jet.

Specific hazards arising from the hazardous product

Flammable. Vapours can form explosive mixtures with air.
In case of fire may be liberated: Gases/vapours, toxic

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures****General advice**

Remove all sources of ignition.
Do not breathe gas/fumes/vapour/spray.
Avoid contact with skin, eyes and clothes.
Use personal protection equipment.

For emergency responders

For further specification, refer to section 8 of the SDS.

Environmental precautions

Do not allow uncontrolled discharge of product into the environment.
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.

Methods and material for containment and cleaning up**For containment**

Prevent spread over a wide area (e.g. by containment or oil barriers).
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

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For cleaning up

Provide adequate ventilation.
Clear contaminated areas thoroughly.
Do not rinse down with water.

Other information

No information available.

Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharges.
Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only.
Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Not required.

Further information on storage conditions

Keep container tightly closed.

8. Exposure controls/Personal protection

Control parameters

Exposure limits (ACGIH)

CAS No	Chemical name	ppm	mg/m ³	F/ml	Category	Origin
75-28-5	Butane: isobutane	1000			STEL (15 min)	ACGIH-2023
106-97-8	Butane: n-butane	1000			STEL (15 min)	ACGIH-2023
74-98-6	Propane	-	-		Asphyxiant	ACGIH-2023

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.

Individual protection measures, such as personal protective equipment

Eye/face protection

Eye glasses with side protection (EN 166)

Hand protection

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

FKM (fluoro rubber), Breakthrough time::

PVA (Polyvinyl alcohol), Breakthrough time::

NBR (Nitrile rubber), Breakthrough time::

Butyl caoutchouc (butyl rubber), Breakthrough 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: AX (short-term)

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Aerosol	
Colour:	transparent beige	
Odour:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		-44,5 °C
Flammability:		not applicable
		not applicable
Lower explosive limits:		0,6 vol. %
Upper explosive limits:		10,9 vol. %
Flash point:		< -20 °C
Auto-ignition temperature:		> 200 °C
Decomposition temperature:		not determined
pH-Value:		not determined
Viscosity / kinematic:		not determined
Water solubility:		not applicable
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:		not determined

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Vapour pressure: 8300 hPa
(at 20 °C)
Density (at 20 °C): 0,736 g/cm³
Relative vapour density: not determined

Other information**Information with regard to physical hazard classes**

Explosive properties
not determined
Sustaining combustion: No data available
Self-ignition temperature
Solid: not applicable
Gas: not applicable
Oxidizing properties
Not oxidising.

Other safety characteristics

Evaporation rate: not determined
Solvent separation test: not determined
Solvent content: 70,2 %
Solid content: 30,7%
Viscosity / dynamic: not determined

Further Information

No information available.

10. Stability and reactivity**Reactivity**

No further relevant information available.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

No known hazardous reactions.

Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

Incompatible materials

Oxidising agent, strong

Hazardous decomposition products

Carbon monoxide

11. Toxicological information**Information on toxicological effects****Acute toxicity**

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

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CAS No	Chemical name				
	Route of exposure	Dose	Species	Source	Method
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)				
	oral	LD50 >15000 mg/kg	Rat		
	dermal	LD50 >3400 mg/kg	Rat		
1174921-73-3	Hydrocarbons, C9-10, <2% aromatics				
	oral	LD50 4951 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit		
	inhalation (4 h) vapour	LC50 4951 mg/l	Rat		
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics				
	oral	LD50 > 5000 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit		
	inhalation (4 h) vapour	LC50 5000 mg/l	Rat		
61789-86-4	calcium sulfonate				
	oral	LD50 5000 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rat		
	calcium bis (di C8-C10, branched, C9 rich, alkylnaphthalenesulphonate)				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 > 20000 mg/kg	Rabbit		
	inhalation (4 h) vapour	LC50 > 18 mg/l	Rat		

Irritation and corrosivity

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

Sensitizing effects

May cause an allergic skin reaction. (calcium sulfonate)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%); Hydrocarbons, C9-10, <2% aromatics; Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics)

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure. (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%))

Aspiration hazard

May be fatal if swallowed and enters airways.

Information on other hazards

Endocrine disrupting properties

Endocrine disrupting potential No information available.

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Further information

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

12. Ecological information

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Mobility in soil

There are no data available on the mixture itself.

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects

No further relevant information available.

Further information

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

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

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Do not mix with other wastes. Do not allow to enter into surface water or drains.

List of proposed waste codes/waste designations in accordance with EWC:

Contaminated packaging

Remove according to the regulations.

14. Transport information

Canadian TDG

UN number:

UN 1950

Proper shipping name:

Coating solution

Hazard classes:

2

Hazard label:

2.1

Limited quantity:

1L



Marine transport (IMDG)

UN number or ID number:

UN 1950

United Nations proper shipping name:

AEROSOLS

name:

Transport hazard class(es):

2.1

Packing group:

-

Hazard label:

2.1



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Marine pollutant:	no
Special Provisions:	63, 190, 277, 327, 344, 959
Limited quantity:	1000 mL
Excepted quantity:	E0
EmS:	F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:	UN 1950
United Nations proper shipping name:	AEROSOLS, FLAMMABLE
Transport hazard class(es):	2.1
Packing group:	-
Hazard label:	2.1



Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

Other applicable information (air transport)

E0
Passenger-LQ: Y203

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Other applicable information

SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

SG69 For AEROSOLS with a maximum capacity of 1litre: 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.

15. Regulatory information

Canadian regulations

DSL/NDSL inventory status

Substance/product listed in the following inventories: DSL/NDSL

Directive 2004/42/EC on VOC in	70,18 %
paints and varnishes:	516,5 g/l

Additional information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

16. Other information

Changes

Safety Data Sheet

according to WHMIS

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This data sheet contains changes from the previous version in section(s): 2,6,8,11,12,14,15.

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%

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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)