

Safety Data Sheet

according to UK REACH Regulation

DINITROL 4942

Revision date: 21.02.2024

Product code: 20225

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

1.1. Product identifier

DINITROL 4942

UFI: 2VAP-WTP3-M50G-3QRS

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

Use of the substance/mixture

Korrosionsschutzmittel

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	Telefax:	+ 49 (0) 5281 9829860
E-mail:	msds@dinol.com		
Contact person:	Labor		
Responsible Department:	msds@dinol.com		

1.4. Emergency telephone number:

Giftnotruf Berlin: +49 30 30686 700 (Beratung in Deutsch und Englisch)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 3; H226
STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Signal word: Warning

Pictograms:



Hazard statements

H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

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Special labelling of certain mixtures

EUH066

Repeated exposure may cause skin dryness or cracking.
Restricted to professional users.

Labelling of packages where the contents do not exceed 125 ml

Signal word:

Warning

Pictograms:



2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			25 - < 50 %
	919-857-5		01-2119463258-33	
	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1; H226 H336 H304 EUH066			
64-17-5	Ethanol			1 - < 3 %
	200-578-6		01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
7429-90-5	aluminium powder (stabilised)			1 - < 3 %
	231-072-3	013-002-00-1	01-2119455851-35	
	Flam. Sol. 1, Water-react. 2; H228 H261			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
	919-857-5	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	25 - < 50 %
	inhalation: LC50 = >5000 mg/l (vapours); dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000 mg/kg		
64-17-5	200-578-6	Ethanol	1 - < 3 %
	inhalation: LC50 = > 50 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 10470 mg/kg Eye Irrit. 2; H319: >= 50 - 100		
7429-90-5	231-072-3	aluminium powder (stabilised)	1 - < 3 %
	inhalation: LC50 = >5 mg/l (dusts or mists)		

Further Information

Hydrocarbons meet the requirements for not being classified as carcinogenic (<0,1% benzene alt<3% (w/w) DMSO extract (IP 346)).

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.

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Never give anything by mouth to an unconscious person or a person with cramps.
If unconscious but breathing normally, place in recovery position and seek medical advice.

After inhalation

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

After contact with skin

Change contaminated clothing.
After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious).
Do NOT induce vomiting.
Call a physician immediately.
Put victim at rest, cover with a blanket and keep warm.

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

No information available.

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**

Carbon dioxide (CO₂) Extinguishing powder Sand alcohol resistant foam
Never use water.

Unsuitable extinguishing media

water

5.2. Special hazards arising from the substance or mixture

No information available.

5.3. Advice for firefighters

Use appropriate respiratory protection.

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.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation.
Wear personal protection equipment.
Avoid contact with skin, eyes and clothes.
Avoid breathing dust/fume/gas/mist/vapours/spray.

For emergency responders

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

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment.
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

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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.

For cleaning up

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

Other information

- No information available.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

- 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

- Keep away from sources of ignition - No smoking.
- Take precautionary measures against static discharges.

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.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- No special measures are necessary.

Hints on joint storage

- Not required.

Further information on storage conditions

- Keep container tightly closed.

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/m ³	fibres/ml	Category	Origin
7429-90-5	Aluminium metal, respirable dust	-	4		TWA (8 h)	WEL
1317-65-3	Calcium carbonate, respirable	-	4		TWA (8 h)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL

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DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
Worker DNEL, long-term		dermal	systemic	208 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	871 mg/m³
Consumer DNEL, long-term		inhalation	systemic	185 mg/m³
Consumer DNEL, long-term		dermal	systemic	125 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	125 mg/kg bw/day
,				
64-17-5	Ethanol			
Consumer DNEL, long-term		dermal	systemic	206 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	343 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	114 mg/m³
Worker DNEL, long-term		inhalation	systemic	950 mg/m³
Worker DNEL, acute		inhalation	local	1900 mg/m³
Consumer DNEL, acute		inhalation	local	950 mg/m³
7429-90-5	aluminium powder (stabilised)			
Worker DNEL, long-term		inhalation	systemic	3,72 mg/m³
Worker DNEL, long-term		inhalation	local	3,72 mg/m³
Consumer DNEL, long-term		oral	systemic	3,95 mg/kg bw/day
,				

PNEC values

CAS No	Substance		Value
	Environmental compartment		
64-17-5	Ethanol		
	Freshwater		0,96 mg/l
	Marine water		0,79 mg/l
	Freshwater sediment		3,6 mg/kg
	Marine sediment		2,9 mg/kg
	Micro-organisms in sewage treatment plants (STP)		580 mg/l
	Soil		0,63 mg/kg
7429-90-5	aluminium powder (stabilised)		
	Freshwater		0,0749 mg/l
	Micro-organisms in sewage treatment plants (STP)		20 mg/l

8.2. Exposure controls



Appropriate engineering controls

Provide adequate ventilation.

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

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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

Recommended glove articles :

NBR (Nitrile rubber) - ($\geq 0,12$ mm), Breakthrough time:: 480 min.

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	viscous
Colour:	brown
Odour:	characteristic
Odour threshold:	not determined

Test method

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	154 - 193 °C
Flammability:	not applicable
Lower explosion limits:	0,6 vol. %
Upper explosion limits:	7 vol. %
Flash point:	41 °C
Auto-ignition temperature:	> 200 °C
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic: (at 40 °C)	> 20,5 mm²/s
Water solubility:	not determined
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	3 hPa
Vapour pressure: (at 50 °C)	13 hPa
Density (at 20 °C):	1,07 - 1,11 g/cm³ DIN 51757
Relative vapour density:	not determined
Particle characteristics:	not applicable

9.2. Other information

Information with regard to physical hazard classes

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Explosive properties

The product is: not explosive.. In use, may form flammable/explosive vapour-air mixture.

Sustaining combustion:

No data available

Oxidizing properties

not determined

Other safety characteristics**Evaporation rate:**

not determined

Solvent content:

30,8 %

Solid content:

66 - 70

Softening point:

not determined

Viscosity / dynamic:

650-900 mPa·s

(at 20 °C)

Further Information

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No further relevant information available.

10.2. Chemical stability

No known hazardous decomposition products.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

No further relevant information available.

10.5. Incompatible materials

No further relevant information available.

10.6. Hazardous decomposition products

Carbon monoxide

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****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				
	Exposure route	Dose	Species	Source	Method
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics				
	oral	LD50 mg/kg	>5000	Rat	
	dermal	LD50 mg/kg	>5000	Rabbit	
	inhalation (4 h) vapour	LC50 mg/l	>5000	Rat	
64-17-5	Ethanol				
	oral	LD50 mg/kg	10470	Rat	
	dermal	LD50 mg/kg	> 2000	Rabbit	
	inhalation (4 h) vapour	LC50	> 50 mg/l	Rat	
7429-90-5	aluminium powder (stabilised)				
	inhalation (4 h) dust/mist	LC50	>5 mg/l	Rat	

Irritation and corrosivity

Based on available data, the classification criteria are not met.
Repeated exposure may cause skin dryness or cracking.

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. (Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics)

STOT-repeated exposure

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

Aspiration hazard

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

Information on likely routes of exposure

No information available.

Specific effects in experiment on an animal

No information available.

Additional information on tests

No information available.

Practical experience

No information available.

11.2. Information on other hazards

Endocrine disrupting properties

Endocrine disrupting potential No information available.

Further information

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

SECTION 12: Ecological information

12.1. Toxicity

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

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64-17-5	Ethanol					
	Acute algae toxicity	ErC50	275 mg/l	72 h	Chlorella vulgaris	
	Acute crustacea toxicity	EC50 mg/l	> 10000	48 h	Daphnia magna (Big water flea)	

12.2. Persistence and degradability

No further relevant information available.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
	OECD 301F	> 60 %	28	
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

No further relevant information available.

12.4. Mobility in soil

No further relevant information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. 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.

12.7. Other adverse effects

No further relevant information available.

Further information

There are no data available on the mixture itself.

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 Wastes Code - residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Dispose of waste according to applicable legislation.

SECTION 14: Transport information

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Land transport (ADR/RID)

14.1. UN number or ID number:
14.2. UN proper shipping name:
14.3. Transport hazard class(es):
14.4. Packing group:
Hazard label:

UN 1139
COATING SOLUTION
3
III
3



Classification code: F1
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 30
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number or ID number:
14.2. UN proper shipping name:
14.3. Transport hazard class(es):
14.4. Packing group:
Hazard label:

UN 1139
Coating solution
3
III
3



Classification code: F1
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number:
14.2. UN proper shipping name:
14.3. Transport hazard class(es):
14.4. Packing group:
Hazard label:

UN 1139
COATING SOLUTION
3
III
3



Marine pollutant: no
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:
14.2. UN proper shipping name:
14.3. Transport hazard class(es):
14.4. Packing group:
Hazard label:

UN 1139
COATING SOLUTION
3
III
3



Special Provisions: A3

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Limited quantity Passenger:	10 L	
Passenger LQ:	Y344	
Excepted quantity:	E1	
IATA-packing instructions - Passenger:		355
IATA-max. quantity - Passenger:		60 L
IATA-packing instructions - Cargo:		366
IATA-max. quantity - Cargo:		220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Flammable liquids

14.7. Maritime transport in bulk according to IMO instruments

not applicable

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 40, Entry 75

Directive 2004/42/EC on VOC in
paints and varnishes:

30,80 % (344,9 g/l)

Information according to Directive
2012/18/EU (SEVESO III):

P5c FLAMMABLE LIQUIDS

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

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

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

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): 9,15.

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Abbreviations and acronyms

Water-react: Substances and mixtures which in contact with water emit flammable gases
 Flam. Liq: Flammable liquids
 Flam. Sol: Flammable solids
 Asp. Tox: Aspiration hazard
 Eye Irrit: Eye irritation
 STOT SE: Specific target organ toxicity - single exposure
 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 GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
STOT SE 3; H336	Calculation method

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H228 Flammable solid.
 H261 In contact with water releases flammable gases.
 H304 May be fatal if swallowed and enters airways.
 H319 Causes serious eye irritation.
 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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)