


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

- **1.1 Product identifier**
- **Trade name:** *DINITROL 7250 Glasklar Spray*
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation** *Cleaning material/ Detergent*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*DINOL GmbH
Pyrmonter Str. 76
D-32676 Lügde
Tel: +49 5281 9829 80
Fax: +49 5281 9829 860
E-mail: msds@dinol.com*
- **Further information obtainable from:** *Research & Development*
- **1.4 Emergency telephone number:** *Giftnotruf Berlin +49(0)30 30686 790 Beratung in Deutsch und Englisch.*

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 **F+; Extremely flammable**
R12: Extremely flammable.
- **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 marked in accordance with EU Directives / respective national laws.
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
The R and S phrases may be omitted if packaging contains no more than 0.125 litre.*
- **Code letter and hazard designation of product:**
F+ Extremely flammable
- **Risk phrases:**
12 Extremely flammable.
- **Safety phrases:**
*2 Keep out of the reach of children.
16 Keep away from sources of ignition - No smoking.
24/25 Avoid contact with skin and eyes.
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.
56 Dispose of this material and its container to hazardous or special waste collection point.*
- **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.

Trade name: DINITROL 7250 Glasklar Spray

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- 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**
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT: Not applicable.**
- **vPvB: Not applicable.**

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterization: Mixtures**
- **Description: Mixture of substances listed below with additions.**

· **Dangerous components:**

CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	Propan-2-ol ☒ Xi R36; ☒ F R11 R67 ☒ Flam. Liq. 2, H225; ☒ Eye Irrit. 2, H319; STOT SE 3, H336	5-<10%
CAS: 111-76-2 EINECS: 203-905-0 Reg.nr.: 01-2119475108-36	2-butoxyethanol ☒ Xn R20/21/22; ☒ Xi R36/38 ☒ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	1-<5%
CAS: 74-98-6 EINECS: 200-827-9	Propane liquefied ☒ F+ R12 ☒ Flam. Gas 1, H220; ☒ Press. Gas, H280	1-<5%
CAS: 106-97-8 EINECS: 203-448-7	Butane, pure ☒ F+ R12 ☒ Flam. Gas 1, H220; ☒ Press. Gas, H280	1-<5%

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

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information: Take affected persons out into the fresh air.**
- **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: If symptoms persist consult doctor.**
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
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.
- **5.2 Special hazards arising from the substance or mixture** Carbon monoxide (CO)
- **5.3 Advice for firefighters**
- **Protective equipment: No special measures required.**

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· **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Keep away from ignition sources.

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**

· **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Absorb liquid components with liquid-binding material.

· **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** 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: Not required.**

· **Further information about storage conditions:**

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:**

67-63-0 Propan-2-ol

WEL Short-term value: 1250 mg/m³, 500 ppm

Long-term value: 999 mg/m³, 400 ppm

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111-76-2 2-butoxyethanol

WEL Short-term value: 246 mg/m³, 50 ppm
Long-term value: 123 mg/m³, 25 ppm
Sk, BMGV

106-97-8 Butane, pure

WEL Short-term value: 1810 mg/m³, 750 ppm
Long-term value: 1450 mg/m³, 600 ppm
Carc (if more than 0.1% of buta-1.3-diene)

· **DNELs****111-76-2 2-butoxyethanol**

Oral	Acute - systemic effects, general population	13.4 mg/kg bw/day (General Population)
	Long-term - systemic effects, general population	3.2 mg/kg bw/day (General Population)
Dermal	Acute - systemic effects, general population	44.5 mg/kg (General population)
	Long-term - systemic effects, general population	38 mg/kg bw/day (General population)
	Long-term - systemic effects, worker	75 mg/kg bw/day (Worker)
Inhalative	Acute - Local effects, worker	246 mg/m ³ (Worker)
	Acute - local effects, general population	123 mg/m ³ (General Population)
	Acute - systemic effects, general population	633 mg/m ³ (General Population)
	Acute - systemic effect, worker	633 mg/m ³ (Worker)
	Long-term - systemic effects, general population	49 mg/m ³ (General Population)
	Long-term - systemic effects, worker	98 mg/m ³ (Worker)

· **PNECs****111-76-2 2-butoxyethanol**

Aquatic compartment - freshwater	8.8 mg/L (not specified)
Aquatic compartment - marine water	0.88 mg/L (not specified)
Aquatic compartment - sediment in freshwater	8.14 mg/kg sed dw (not specified)
Aquatic compartment - sediment in marine water	3.46 mg/kg sed dw (not specified)
Sewage treatment plant	463 mg/L (not specified)
Terrestrial compartment - soil	2.8 mg/kg dw (not specified)

· **Ingredients with biological limit values:****111-76-2 2-butoxyethanol**

BMGV 240 mmol/mol creatinine
Medium: urine
Sampling time: post shift
Parameter: butoxyacetic acid

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**· **Personal protective equipment:**

· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

· **Respiratory protection:** Not required.

· **Protection of hands:**

Protective gloves

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· **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.

Butyl rubber

· **Penetration time of glove material**

> 480 min.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials: Strong material gloves**

· **Eye protection:**



Tightly sealed goggles

· **Body protection: Protective work clothing**

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Aerosol
· Colour:	Colourless
· Odour:	Characteristic
· Odour threshold:	Not determined.

· **pH-value At 20 °C:** 8.5

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Not applicable, as aerosol.

· **Flash point:** < -10 °C (DIN 53213)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 425 °C

· **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:	2 Vol %
· Upper:	12 Vol %

· **Vapour pressure At 20 °C:** 23 hPa

· **Density At 20 °C:** 0.94 g/cm³ (DIN 51757)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not applicable.

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· Solubility in / Miscibility with water:	Partly miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	21.2 %
Water:	78.5 %
· Solids content:	0.3 % (DIN 53216)
· 9.2 Other information	No further relevant information available.
· VOC (EU):	21.00 %
· VOC (EU):	200.0 g/l
· VOCV:	21.00 %

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **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 toxicological effects**
- **Acute toxicity:**

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

67-63-0 Propan-2-ol

Oral	LD50	5840 mg/kg (RAT)
Dermal	LD50	13900 mg/kg (RABBIT)
Inhalative	LC50/4 h	>20 mg/l (RAT)
	LC50/96 h	9640 mg/l (pimephales promelas)

111-76-2 2-butoxyethanol

Oral	LD50	>400 mg/kg (rat)
Dermal	LD50	2270 mg/kg (RAT)
Inhalative	LC50/4 h	>2 mg/l (RAT)
	LC50/24 h	1700 mg/l (Fish)

106-97-8 Butane, pure

Inhalative	LC50/4 h	658 mg/l (rat)
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- **Primary irritant effect:**
- **on the skin:** Prolonged or repeated contact with skin may cause slight irritation and/or reddening.
- **on the eye:** No irritating effect.

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· **Sensitization:** No sensitizing effects known.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

67-63-0 Propan-2-ol

EC50/ 24 h > 1000 mg/l (DAPHNIA MAGNA)

EC50/72 h > 1000 mg/l (ALGAE)

111-76-2 2-butoxyethanol

EC50/ 24 h > 1500 mg/l (DAPHNIA MAGNA)

· **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.

· Additional ecological information:

· General notes:

In accordance with the requirements of the RVO in the Act on Detergents and Cleansing Agents, tensides are biodegradable up to at least 90 %.

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

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **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.

· European waste catalogue

15 00 00 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED

15 01 00 packaging (including separately collected municipal packaging waste)

15 01 10* packaging containing residues of or contaminated by dangerous substances

16 00 00 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

16 05 00 gases in pressure containers and discarded chemicals

16 05 04* gases in pressure containers (including halons) containing dangerous substances

· Uncleaned packaging:

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

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number

· **ADR, IMDG, IATA**

UN1950

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Trade name: DINITROL 7250 Glasklar Spray

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· **14.2 UN proper shipping name**
 · **ADR** 1950 AEROSOLS
 · **IMDG** AEROSOLS
 · **IATA** AEROSOLS, flammable

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 2 5F Gases.
 · **Label** 2.1

· **IMDG, IATA**



· **Class** 2.1
 · **Label** 2.1

· **14.4 Packing group**

· **ADR, IMDG, IATA** Void

· **14.5 Environmental hazards:**

· **Marine pollutant:** No

· **14.6 Special precautions for user**

Warning: Gases.

· **Danger code (Kemler):**

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· **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** 2

· **Tunnel restriction code** D

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Labelling according to EU guidelines:**

The product has been marked in accordance with EU Directives / respective national laws.

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

The R and S phrases may be omitted if packaging contains no more than 0.125 litre.

· **Code letter and hazard designation of product:**

F+ Extremely flammable

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Trade name: DINITROL 7250 Glasklar Spray

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· **Risk phrases:**

12 Extremely flammable.

· **Safety phrases:**

2 Keep out of the reach of children.

16 Keep away from sources of ignition - No smoking.

24/25 Avoid contact with skin and eyes.

46 If swallowed, seek medical advice immediately and show this container or label.

51 Use only in well-ventilated areas.

56 Dispose of this material and its container to hazardous or special waste collection point.

· **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**

· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
Wasser	78.5
NK	21.2

· **Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.**

· **Other regulations, limitations and prohibitive regulations**

· **Please note: 2-3**

· **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**

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

R11 Highly flammable.

R12 Extremely flammable.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R36 Irritating to eyes.

R36/38 Irritating to eyes and skin.

R67 Vapours may cause drowsiness and dizziness.

· **Department issuing MSDS: Research & Development**

· **Contact: Kontakt: msds@dinol.com oder Tel.: 0049 (0)5281 982 980**

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