





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

- **Product details**
- **Trade name:** Dinitrol 445 Droehnex schwarz Spray
- **Application of the substance / the preparation** Anticorrosion additive
- **Manufacturer/Supplier:**  
Dinol GmbH  
Pyrmonter Strasse 76  
D-32676 Lügde  
Tel: +49 5281 9829 80  
Fax: +49 5281 9829 860  
E-mail: thomas.suerig@dinol.com
- **Further information obtainable from:** Research & Development
- **Information in case of emergency:** Giftnotruf Berlin +49(0)30 30686 790 Beratung in Deutsch und Englisch.

## 2 Hazards identification

- **Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
  -  Xi; Irritant  
 R36: Irritating to eyes.
  -  F+; Extremely flammable  
 R12: Extremely flammable.
  - R52/53-66-67: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Repeated exposure may cause skin dryness or cracking. 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.  
Has a narcotizing effect.
  - **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
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- **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.
  - 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - 66 Repeated exposure may cause skin dryness or cracking.
  - 67 Vapours may cause drowsiness and dizziness.

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· **Safety phrases:**

- 2 Keep out of the reach of children.
- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe fumes/aerosol.
- 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**

### 3 Composition/information on ingredients

· **Chemical characterization**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 141-78-6 EINECS: 205-500-4	Ethyl acetate Xi R36; F R11 R66-67	25-<50%
CAS: 74-98-6 EINECS: 200-827-9	Propane liquefied F+ R12	10-<25%
CAS: 106-97-8 EINECS: 203-448-7	Butane, pure F+ R12	10-<25%
CAS: 1330-20-7 EINECS: 215-535-7	Xylene, mixed isomers, pure Xn R20/21; Xi R38 R10	5-<10%
CAS: 64742-82-1 EINECS: 265-185-4	Naphtha (petroleum), hydrodesulfurized heavy Xn R65; N R51/53 R10-66-67	5-<10%
CAS: 64742-95-6 EINECS: 265-199-0	Solvent naphtha (petroleum), light arom. Xn R65; Xi R37; N R51/53 R10-66-67	<1%
CAS: 95-63-6 EINECS: 202-436-9	1,2,4-Trimethylbenzene Xn R20; Xi R36/37/38; N R51/53 R10	<1%

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

### 4 First aid measures

- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.

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- **Information for doctor:**
- **The following symptoms may occur:**
  - Dizziness
  - Headache
  - Dizziness

## \* 5 Firefighting measures

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
  - Water
  - Water with full jet
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
  - Carbon monoxide (CO)
  - Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **Protective equipment:** No special measures required.
- **Additional information** Cool endangered receptacles with water spray.

## \* 6 Accidental release measures

- **Person-related safety precautions:**
  - Ensure adequate ventilation
  - Keep away from ignition sources.
  - Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
  - 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.
- **Measures for cleaning/collecting:**
  - Ensure adequate ventilation.
  - Do not flush with water or aqueous cleansing agents

## \* 7 Handling and storage

- **Handling:**
- **Information for safe handling:**
  - No special measures required.
  - 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.
- **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.

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- **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.
- **Maximum storage temperature:** < 50 °C

## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

### 141-78-6 Ethyl acetate (25-<50%)

WEL	Short-term value: 400 ppm Long-term value: 200 ppm
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### 106-97-8 Butane, pure (10-<25%)

WEL	Short-term value: 1810 mg/m <sup>3</sup> , 750 ppm Long-term value: 1450 mg/m <sup>3</sup> , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
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### 1330-20-7 Xylene, mixed isomers, pure (5-<10%)

WEL	Short-term value: 441 mg/m <sup>3</sup> , 100 ppm Long-term value: 220 mg/m <sup>3</sup> , 50 ppm Sk; BMGV
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- **Additional information:** The lists valid during the making were used as basis.

- **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.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.

- **Respiratory protection:**

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.

- **Protection of hands:** Not required.

- **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.  
Neoprene gloves (0,47 mm)

- **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.

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

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· Eye protection:



Tightly sealed goggles

## 9 Physical and chemical properties

### · General Information

#### · Appearance:

Form: Aerosol

Colour: Black

· Odour: Characteristic

### · Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Not applicable, as aerosol.

· Flash point: < -10°C (DIN 53213)

· Ignition temperature: 365°C

· 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: 1.5 Vol %

Upper: 11.5 Vol %

· Vapour pressure At 20°C: 4300 hPa

· Density At 20°C: 0.81 g/cm<sup>3</sup>

### · Solubility in / Miscibility with water:

Not miscible or difficult to mix.

### · Solvent content:

Organic solvents: 72.5 %

Solids content: 26.4 % (DIN 53216)

### · Additional information:

VOC (EU): 71.50 %

VOC (EU): 580.0 g/l

## 10 Stability and reactivity

· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· Materials to be avoided:

· Dangerous reactions No dangerous reactions known.

· Dangerous decomposition products: No dangerous decomposition products known.

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## 11 Toxicological information

· **Acute toxicity:**

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

**64742-82-1 Naphtha (petroleum), hydrodesulfurized heavy**

Oral	LD50	>5000 mg/kg (RAT)
Dermal	LD50	>3000 mg/kg (RABBIT)
Inhalative	LC50/4 h	>2.8 mg/l (RAT)

· **Primary 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

## 12 Ecological information

· **Information about elimination (persistence and degradability):**

· **Other information:** There is no data available for the product.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

## 13 Disposal considerations

· **Product:**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11	waste paint and varnish containing organic solvents or other 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
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

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### \* 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 2 5F Gases.
- **Danger code (Kemler):** -
- **UN-Number:** 1950
- **Packaging group:** -
- **Hazard label** 2.1
- **Description of goods:** 1950 AEROSOLS
- **Limited quantities (LQ) LQ2**
- **Transport category** 2
- **Tunnel restriction code** D

- **Maritime transport IMDG:**



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** No
- **Proper shipping name:** AEROSOLS

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label** 2.1
- **Packaging group:** -
- **Proper shipping name:** AEROSOLS, flammable

### \* 15 Regulatory information

- **Chemical safety assessment** A Chemical Safety Assessment has not been carried out.

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· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
NK	50-100

· **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

## **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**

R10 Flammable.

R11 Highly flammable.

R12 Extremely flammable.

R20 Harmful by inhalation.

R20/21 Harmful by inhalation and in contact with skin.

R36 Irritating to eyes.

R36/37/38 Irritating to eyes, respiratory system and skin.

R37 Irritating to respiratory system.

R38 Irritating to skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

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

· **Contact:** Dr. Thomas Sürig

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