







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

- **Product details**
- **Trade name:** Dinitrol 443 Zink Liter
- **Application of the substance / the preparation** *Paint*
- **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**  
 *Xn; Harmful*  
*R20/21: Harmful by inhalation and in contact with skin.*
-  *F; Highly flammable*  
*R10-15: Flammable. Contact with water liberates extremely flammable gases.*
-  *N; Dangerous for the environment*  
*R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
- **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.*
- **Classification system:**  
*The classification is according to the latest editions of the EU-lists, and extended by company and literature data.*

---

- **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:**  
   *Xn Harmful*  
*F Highly flammable*  
*N Dangerous for the environment*
- **Hazard-determining components of labelling:**  
*Xylene, mixed isomers, pure*
- **Risk phrases:**  
*10 Flammable.*  
*15 Contact with water liberates extremely flammable gases.*  
*20/21 Harmful by inhalation and in contact with skin.*  
*50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*

(Contd. on page 2)

**Trade name: Dinitrol 443 Zink Liter**

(Contd. of page 1)

· **Safety phrases:**

- 2 Keep out of the reach of children.  
 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.  
 36/37 Wear suitable protective clothing and gloves.  
 43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.  
 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:**







Contains 2-Butanone oxime. May produce an allergic reaction.

**3 Composition/information on ingredients**

· **Chemical characterization**

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

· **Dangerous components:**

CAS: 7440-66-6 EINECS: 231-175-3	Zinc powder - zinc dust (stabilized)  N R50/53	50-<100%
CAS: 1330-20-7 EINECS: 215-535-7	Xylene, mixed isomers, pure  Xn R20/21;  Xi R38 R10	10-<25%
CAS: 96-29-7 EINECS: 202-496-6	2-Butanone oxime  Xn R21-40;  Xi R41;  Xi R43 Carc. Cat. 3	<1%

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

**4 First aid measures**

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** Do not induce vomiting; call for medical help immediately.

· **Information for doctor:**

· **The following symptoms may occur:**

Headache  
 Dizziness  
 Dizziness

**5 Firefighting measures**

· **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

(Contd. on page 3)

**Trade name: Dinitrol 443 Zink Liter**

(Contd. of page 2)

- **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:** Mount respiratory protective device.
- **Additional information**  
Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

## 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
Prevent seepage into sewage system, workpits and cellars.  
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:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
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.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.

## 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:**

**1330-20-7 Xylene, mixed isomers, pure (10-<25%)**

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

(Contd. on page 4)

**Trade name: Dinitrol 443 Zink Liter**

(Contd. of page 3)

· **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.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

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:**



Protective gloves

· **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.

Nitrile rubber

· **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

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

· **General Information**

· **Appearance:**

**Form:** Liquid

**Colour:** Grey

· **Odour:** Characteristic

· **Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** 136°C

· **Flash point:** 28°C

· **Ignition temperature:** 500°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:** 1.1 Vol %

(Contd. on page 5)

Trade name: **Dinitrol 443 Zink Liter**

(Contd. of page 4)

<b>Upper:</b>	7.0 Vol %
· <b>Vapour pressure At 20°C:</b>	6.7 hPa
· <b>Density At 20°C:</b>	2.5 g/cm <sup>3</sup> (DIN 51757)
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Viscosity:</b>	
<b>Dynamic At 20°C:</b>	1800 mPas
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	18.1 %
<b>Solids content:</b>	81.8 % (DIN 53216)
· <b>Additional information:</b>	
<b>VOC (EU):</b>	17.60 %
<b>VOC (EU):</b>	440.0 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**  
Reacts with acids, alkalis and oxidizing agents.  
Contact with water releases flammable gases.
- **Dangerous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Acute toxicity:**

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

### 1330-20-7 Xylene, mixed isomers, pure

Oral	LD50	8700 mg/kg (RAT)
Dermal	LD50	2000 mg/kg (RABBIT)
Inhalative	LC50/4 h	6350 mg/l (RAT)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritation to eyes possible after a long exposure time.
- **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:

Harmful

- **Inhalation:** Harmful by inhalation.
- **Ingestion:** May cause similar symptoms as for inhalation.

GB

(Contd. on page 6)

**Trade name: Dinitrol 443 Zink Liter**

(Contd. of page 5)

## 12 Ecological information

- **Ecotoxicological effects:**
- **Remark:** Very 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.  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms

## 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
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

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

## 14 Transport information

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



- **ADR/RID class:** 3 (F1) Flammable liquids.
- **Danger code (Kemler):** 39
- **UN-Number:** 1263
- **Packaging group:** III
- **Hazard label** 3
- **Special marking:** Symbol (fish and tree)
- **Description of goods:** 1263 PAINT (not viscous)
- **Limited quantities (LQ)** LQ7
- **Transport category** 3

(Contd. on page 7)

Trade name: **Dinitrol 443 Zink Liter**

(Contd. of page 6)

· **Tunnel restriction code** D/E· **Maritime transport IMDG:**

· **IMDG Class:** 3  
 · **UN Number:** 1263  
 · **Label** 3  
 · **Packaging group:** III  
 · **EMS Number:** F-E,S-E  
 · **Marine pollutant:** Yes  
 Symbol (fish and tree)  
 · **Proper shipping name:** PAINT

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

· **ICAO/IATA Class:** 3  
 · **UN/ID Number:** 1263  
 · **Label** 3  
 · **Packaging group:** III  
 · **Proper shipping name:** PAINT

· **Environmental hazards:**

Product contains environmentally hazardous substances: Zinc powder - zinc dust (stabilized)  
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID

## 15 Regulatory information

· **Chemical safety assessment** A Chemical Safety Assessment has not been carried out.· **National regulations:**· **Technical instructions (air):**

Class	Share in %
NK	10-25

· **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.  
 R20/21 Harmful by inhalation and in contact with skin.  
 R21 Harmful in contact with skin.  
 R38 Irritating to skin.  
 R40 Limited evidence of a carcinogenic effect.

(Contd. on page 8)

Printing date 09.10.2010

Revision: 09.10.2010

**Trade name: Dinitrol 443 Zink Liter**

(Contd. of page 7)

*R41 Risk of serious damage to eyes.**R43 May cause sensitisation by skin contact.**R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**· Department issuing MSDS: Research & Development**· Contact: Dr. Thomas Sürig**· \* Data compared to the previous version altered.*

GB