# Safety Data Sheet
**acc. to OSHA HCS**

*Printing date 07/23/2019* *Reviewed on 07/23/2019*

* 
## 1 Identification

***Product identifier***

***Trade name: DINITROL 9100***

***Article number:*** *DCHIS09015*
***Application of the substance / the mixture*** *Adhesives*

***Details of the supplier of the safety data sheet***
***Manufacturer/Supplier:***
*Hersteller/ Producer: EFTEC AG, Hofstrasse 31, CH-8590 Romanshorn*
*EU-Importeur/ EU-Importer: EFTEC Ltd., Rhigos/Aberdare, GB-Mid Glamorgan CF44 9UE (Responsible for chemical registration in EU)*
*Lieferant/ Supplier: DINOL GmbH, Pyrmonterstrasse 76, D-32676 Lügde*
***Information department:*** *msds@dinol.com*
***Emergency telephone number:***
*Deutschland: +49 30 30 686 700 Giftnotruf Berlin, Beratung in Deutsch und Englisch*
*Schweiz: +41 44 25 15 15 1 Toxikologisches Informationszentrum*
*Österreich: +43 14 06 43 43 Vergiftungsinformationszentrale*

* 
## 2 Hazard(s) identification

***Classification of the substance or mixture***

*Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

*Skin Sens. 1 H317 May cause an allergic skin reaction.*

*Carc. 2 H351 Suspected of causing cancer.*

***Label elements***
***GHS label elements*** *The product is classified and labeled according to the Globally Harmonized System (GHS).*
***Hazard pictograms***

GHS08

***Signal word*** *Danger*

***Hazard-determining components of labeling:***
*Carbon black*
*Diphenylmethan-4,4'-diisocyanat*
***Hazard statements***
*H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.*
*H317 May cause an allergic skin reaction.*
*H351 Suspected of causing cancer.*
***Precautionary statements***
*P201 Obtain special instructions before use.*
*P202 Do not handle until all safety precautions have been read and understood.*
*P261 Avoid breathing dust/fume/gas/mist/vapors/spray*
*P272 Contaminated work clothing must not be allowed out of the workplace.*
*P280 Wear protective gloves/protective clothing/eye protection/face protection.*

(Contd. on page 2)

# Safety Data Sheet
acc. to OSHA HCS

Printing date 07/23/2019 Reviewed on 07/23/2019

**Trade name: DINITROL 9100**

(Contd. of page 1)

P280 Wear protective gloves.
P284 [In case of inadequate ventilation] wear respiratory protection.
P302+P352 If on skin: Wash with plenty of water.
P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P321 Specific treatment (see on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:**
**NFPA ratings (scale 0 - 4)**


Health = 0
Fire = 1
Reactivity = 0

**HMIS-ratings (scale 0 - 4)**


Health = 0
Fire = 1
Reactivity = 0

**Other hazards** none
**Results of PBT and vPvB assessment**
**PBT:** Not applicable.
**vPvB:** Not applicable.

## 3 Composition/information on ingredients

**Chemical characterization: Mixtures**
**Description:** Mixture of the substances listed below with nonhazardous additions.

| **Dangerous components:** | | |
|---|---|---|
| CAS: 1333-86-4<br>EINECS: 215-609-9 | Carbon black<br>Carc. 2, H351 | 25-50% |
| CAS: 101-68-8<br>EINECS: 202-966-0 | Diphenylmethan-4,4'-diisocyanat<br>Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335 | ≥0.1-<1% |

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

## 4 First-aid measures

**Description of first aid measures**
**After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.
Seek medical treatment in case of complaints.
**After skin contact:**
Immediately wash with water and soap and rinse thoroughly.

(Contd. on page 3)

# Safety Data Sheet
acc. to OSHA HCS



**Trade name: DINITROL 9100**

(Contd. of page 2)

*Immediately rinse with water.*
***After eye contact:*** *Rinse opened eye for several minutes under running water.*
***After swallowing:*** *Immediately call a doctor.*
***Information for doctor:***
***Most important symptoms and effects, both acute and delayed*** *No further relevant information available.*
***Indication of any immediate medical attention and special treatment needed***
*No further relevant information available.*

## 5 Fire-fighting measures

***Extinguishing media***
***Suitable extinguishing agents:***
*CO2, extinguishing powder or water spray. Fight larger fires with water spray.*
*Use fire fighting measures that suit the environment.*
***Special hazards arising from the substance or mixture*** *No further relevant information available.*
***Advice for firefighters***
***Protective equipment:*** *No special measures required.*

## 6 Accidental release measures

***Personal precautions, protective equipment and emergency procedures*** *Not required.*
***Environmental precautions:*** *Do not allow to enter sewers/ surface or ground water.*
***Methods and material for containment and cleaning up:***
*Pick up mechanically.*
*Ensure adequate ventilation.*
***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.*
***Protective Action Criteria for Chemicals***

| ***PAC-1:*** | | |
|---|---|---|
| *9082-00-2* | *Polyetherpolyol* | *30 mg/m³* |
| *1333-86-4* | *Carbon black* | *9 mg/m³* |
| *101-68-8* | *Diphenylmethan-4,4'-diisocyanat* | *0.45 mg/m³* |
| *107-66-4* | *Dibutylphosphat* | *2 ppm* |
| *77-58-7* | *Dibutylzinndilaurat* | *1.1 mg/m³* |

| ***PAC-2:*** | | |
|---|---|---|
| *9082-00-2* | *Polyetherpolyol* | *330 mg/m³* |
| *1333-86-4* | *Carbon black* | *99 mg/m³* |
| *101-68-8* | *Diphenylmethan-4,4'-diisocyanat* | *5 mg/m³* |
| *107-66-4* | *Dibutylphosphat* | *21 ppm* |
| *77-58-7* | *Dibutylzinndilaurat* | *8 mg/m³* |

| ***PAC-3:*** | | |
|---|---|---|
| *9082-00-2* | *Polyetherpolyol* | *2,000 mg/m³* |
| *1333-86-4* | *Carbon black* | *590 mg/m³* |
| *101-68-8* | *Diphenylmethan-4,4'-diisocyanat* | *55 mg/m³* |
| *107-66-4* | *Dibutylphosphat* | *125 ppm* |

(Contd. on page 4)

# Safety Data Sheet
acc. to OSHA HCS

Printing date 07/23/2019 Reviewed on 07/23/2019

**Trade name: DINITROL 9100**

(Contd. of page 3)

| | | |
|---|---|---|
| 77-58-7 | Dibutylzinndilaurat | 48 mg/m³ |

## 7 Handling and storage

**Handling:**
**Precautions for safe handling**
No special measures required.
Open and handle receptacle with care.
**Information about protection against explosions and fires:** Keep respiratory protective device available.

**Conditions for safe storage, including any incompatibilities**
**Storage:**
**Requirements to be met by storerooms and receptacles:** No special requirements.
**Information about storage in one common storage facility:** Not required.
**Further information about storage conditions:** Keep receptacle tightly sealed.
**Maximum storage temperature:** < 35°C
**Minimum storage temperature:** > 0°C
**Storage temperature:** 0 - 35 °C
**Storage class:** 10
**Specific end use(s)** No further relevant information available.

* 
## 8 Exposure controls/personal protection

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

**Control parameters**

| **Components with limit values that require monitoring at the workplace:** | |
|---|---|
| **1333-86-4 Carbon black** | |
| PEL (USA) | Long-term value: 3.5 mg/m³ |
| REL (USA) | Long-term value: 3.5* mg/m³<br>*0.1 in presence of PAHs;See Pocket Guide Apps.A+C |
| TLV (USA) | Long-term value: 3* mg/m³<br>*inhalable fraction |
| EL (Canada english) | Long-term value: 3 mg/m³<br>IARC 2B |
| EV (Canada english) | Long-term value: 3.5 mg/m³ |
| **101-68-8 Diphenylmethan-4,4'-diisocyanat** | |
| PEL (USA) | Ceiling limit value: 0.2 mg/m³, 0.02 ppm |
| REL (USA) | Long-term value: 0.05 mg/m³, 0.005 ppm<br>Ceiling limit value: 0.2* mg/m³, 0.02* ppm<br>*10-min |
| TLV (USA) | Long-term value: 0.051 mg/m³, 0.005 ppm |
| EL (Canada english) | Long-term value: 0.005 ppm<br>Ceiling limit value: 0.01 ppm<br>Skin; S(R) |
| EV (Canada english) | Long-term value: 0.005 ppm<br>Ceiling limit value: 0.02 ppm |

**Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 5)

# Safety Data Sheet
acc. to OSHA HCS



**Trade name: DINITROL 9100**

(Contd. of page 4)

**Exposure controls**
**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.
Store protective clothing separately.
**Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A/P2
**Protection of hands:**

Protective gloves

Chemical resistant protective gloves with CE-labeling
To minimize the wetness in the glove due to perspiration changing of gloves during a shift is required.
Softening of the callus when wearing air-impermeable gloves is possible.
Check the permeability prior to each anewed use of the glove.
**Material of gloves**

Nitrile rubber, NBR
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.
**Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
**Eye protection:**

Safety glasses

**Body protection:**

Protective work clothing

* 
## 9 Physical and chemical properties

**Information on basic physical and chemical properties**
**General Information**
**Appearance:**

| | |
|---|---|
| **Form:** | Fluid |
| **Color:** | Black |
| **Odor:** | uncharacteristic |

(Contd. on page 6)

# Safety Data Sheet
acc. to OSHA HCS



**Trade name: DINITROL 9100**

(Contd. of page 5)

| | |
|---|---|
| **Odor threshold:** | Not determined. |
| **pH-value:** | Not determined. |
| **Change in condition** | |
| **Melting point/Melting range:** | Undetermined. |
| **Boiling point/Boiling range:** | 270 °C (518 °F) |
| **Flash point:** | 164 °C (327.2 °F) |
| **Flammability (solid, gaseous):** | Not applicable. |
| **Ignition temperature:** | >300 °C (>572 °F) |
| **Decomposition temperature:** | Not determined. |
| **Auto igniting:** | Product is not selfigniting. |
| **Danger of explosion:** | Product does not present an explosion hazard. |
| **Explosion limits:** | |
| **Lower:** | 0.4 Vol % |
| **Upper:** | 2.9 Vol % |
| **Vapor pressure:** | Not determined. |
| **Density at 20 °C (68 °F):** | 1.13-1.15 g/cm³ (9.43-9.6 lbs/gal) |
| **Relative density** | Not determined. |
| **Vapor density** | Not determined. |
| **Evaporation rate** | Not determined. |
| **Solubility in / Miscibility with** | |
| **Water:** | Not miscible or difficult to mix. |
| **Partition coefficient (n-octanol/water):** | Not determined. |
| **Viscosity:** | |
| **Dynamic:** | Not determined. |
| **Kinematic:** | Not determined. |
| **Other information** | No further relevant information available. |

## 10 Stability and reactivity

**Reactivity** No further relevant information available.
**Chemical stability**
**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
**Possibility of hazardous reactions** No dangerous reactions known.
**Conditions to avoid** No further relevant information available.
**Incompatible materials:** No further relevant information available.
**Hazardous decomposition products:** No dangerous decomposition products known.



(Contd. on page 7)

# Safety Data Sheet
acc. to OSHA HCS



**Trade name: DINITROL 9100**

(Contd. of page 6)

## 11 Toxicological information

**Information on toxicological effects**
**Acute toxicity:**

| **LD/LC50 values that are relevant for classification:** | | |
|---|---|---|
| **ATE (Acute Toxicity Estimate)** | | |
| Oral | LD50 | >5,232 mg/kg (rat) |
| Dermal | LD50 | >5,232 mg/kg (rabbit) |

| **1333-86-4 Carbon black** | | |
|---|---|---|
| Oral | LD50 | >8,000 mg/kg (rat) (Literatur) |

| **101-68-8 Diphenylmethan-4,4'-diisocyanat** | | |
|---|---|---|
| Oral | LD50 | 4,700 mg/kg (rat) |
| Inhalative | LC50/ 4h | 370 mg/l (rat) |

**Specific symptoms in biological assay:**
**Primary irritant effect:**
**on the skin:** No irritant effect.
**on the eye:** No irritating effect.
**Sensitization:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.
**Other information (about experimental toxicology):**
**Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

**Carcinogenic categories**

| **IARC (International Agency for Research on Cancer)** | | |
|---|---|---|
| 1333-86-4 | Carbon black | 2B |
| 101-68-8 | Diphenylmethan-4,4'-diisocyanat | 3 |

| **NTP (National Toxicology Program)** |
|---|
| None of the ingredients is listed. |

| **OSHA-Ca (Occupational Safety & Health Administration)** |
|---|
| None of the ingredients is listed. |

## 12 Ecological information

**Toxicity**

| **Aquatic toxicity:** | |
|---|---|
| **1333-86-4 Carbon black** | |
| LC50/ 96h | >1,000 mg/l (fish) (OECD 203) |
| EC50/ 24h | >5,600 mg/l (daphnia) (OECD 202) |
| **101-68-8 Diphenylmethan-4,4'-diisocyanat** | |
| LC50 | >100 mg/l (fish) |
| LC50/ 96h | >1,000 mg/l (fish) |
| EC50 | >100 mg/l (bacteria) |

(Contd. on page 8)

# Safety Data Sheet
acc. to OSHA HCS

Printing date 07/23/2019 Reviewed on 07/23/2019

**Trade name: DINITROL 9100**

(Contd. of page 7)

| | |
|---|---|
| EC50/ 24h | >1,000 mg/l (daphnia) |

**Persistence and degradability** No further relevant information available.
**Behavior in environmental systems:**
**Bioaccumulative potential** No further relevant information available.
**Mobility in soil** No further relevant information available.
**Additional ecological information:**
**General notes:**
Water hazard class 1 (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.
**Results of PBT and vPvB assessment**
**PBT:** Not applicable.
**vPvB:** Not applicable.
**Other adverse effects** No further relevant information available.

## 13 Disposal considerations

**Waste treatment methods**
**Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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

## 14 Transport information

| | |
|---|---|
| **UN-Number**<br>**DOT, ADR, ADN, IMDG, IATA** | Void |
| **UN proper shipping name**<br>**DOT, ADR, ADN, IMDG, IATA** | Void |
| **Transport hazard class(es)**<br>**DOT, ADR, ADN, IMDG, IATA**<br>**Class** | Void |
| **Packing group**<br>**DOT, ADR, IMDG, IATA** | Void |
| **Environmental hazards:**<br>**Marine pollutant:** | No |
| **Special precautions for user** | Not applicable. |
| **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** | Not applicable. |
| **UN "Model Regulation":** | Void |



(Contd. on page 9)

# Safety Data Sheet
acc. to OSHA HCS



(Contd. of page 8)

* 
## 15 Regulatory information

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

**Section 355 (extremely hazardous substances):**
None of the ingredient is listed.

**Section 313 (Specific toxic chemical listings):**

| | |
|---|---|
| 101-68-8 | Diphenylmethan-4,4'-diisocyanat |

**TSCA (Toxic Substances Control Act):**
All components have the value ACTIVE.

**Hazardous Air Pollutants**

| | |
|---|---|
| 101-68-8 | Diphenylmethan-4,4'-diisocyanat |

**Proposition 65**

**Chemicals known to cause cancer:**

| | |
|---|---|
| 28553-12-0 | Phthalsäuredi-3,5,5-trimethylhexylester |

**Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.

**Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.

**Cancerogenity categories**

**EPA (Environmental Protection Agency)**

| | | |
|---|---|---|
| 101-68-8 | Diphenylmethan-4,4'-diisocyanat | D, CBD |

**TLV (Threshold Limit Value established by ACGIH)**

| | |
|---|---|
| Carbon black | A4 |
| Dibutylzinndilaurat | A4 |

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

| | |
|---|---|
| 1333-86-4 | Carbon black |

**Canadian substance listings:**

**Canadian Ingredient Disclosure list (limit 0.1%)**

| | |
|---|---|
| 101-68-8 | Diphenylmethan-4,4'-diisocyanat |

**Canadian Ingredient Disclosure list (limit 1%)**

| | |
|---|---|
| 1333-86-4 | Carbon black |

**National regulations:**

**Technical instructions (air):**

| Class | Share in % |
|---|---|
| I | 0.1-1 |

**USA-VOC:** 0.0 g/l / 0.00 lb/gal
**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.



(Contd. on page 10)

# Safety Data Sheet
**acc. to OSHA HCS**

*Printing date 07/23/2019* *Reviewed on 07/23/2019*

***Trade name: DINITROL 9100***

(Contd. of page 9)

## 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.*

***Department issuing SDS:*** *Entwicklung*
***Contact:*** *msds@dinol.com*
***Date of preparation / last revision*** *07/23/2019 / -*
***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*
*DOT: US Department of Transportation*
*IATA: International Air Transport Association*
*ACGIH: American Conference of Governmental Industrial Hygienists*
*EINECS: European Inventory of Existing Commercial Chemical Substances*
*ELINCS: European List of Notified Chemical Substances*
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*
*NFPA: National Fire Protection Association (USA)*
*HMIS: Hazardous Materials Identification System (USA)*
*LC50: Lethal concentration, 50 percent*
*LD50: Lethal dose, 50 percent*
*PBT: Persistent, Bioaccumulative and Toxic*
*vPvB: very Persistent and very Bioaccumulative*
*NIOSH: National Institute for Occupational Safety*
*OSHA: Occupational Safety & Health*
*TLV: Threshold Limit Value*
*PEL: Permissible Exposure Limit*
*REL: Recommended Exposure Limit*
*Acute Tox. 4: Acute toxicity – Category 4*
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*
*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A*
*Resp. Sens. 1: Respiratory sensitisation – Category 1*
*Skin Sens. 1: Skin sensitisation – Category 1*
*Carc. 2: Carcinogenicity – Category 2*
*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*
*STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2*
**** Data compared to the previous version altered.***