

Safety Data Sheet
acc. to OSHA HCS

Printing date 03/13/2015

Reviewed on 03/13/2015

1 Identification**Product identifier****Trade name:** *DINITROL 9100***Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

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:** USA, For help in emergency call +1-866-404-4230**2 Hazard(s) identification****Classification of the substance or mixture****Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R42: May cause sensitization by inhalation.

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 was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

Label elements**Labelling according to EU guidelines:**

The product has been classified and marked in accordance with directives on hazardous materials.

Code letter and hazard designation of product:

Xn Harmful

Hazard-determining components of labeling:

diphenylmethane-4,4'-di-isocyanate

Risk phrases:

42 May cause sensitization by inhalation.

Safety phrases:

23 Do not breathe gas/fumes/vapour/spray.

36 Wear suitable protective clothing.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/13/2015

Reviewed on 03/13/2015

Trade name: **DINITROL 9100**

(Contd. of page 1)

45 In case of accident or if you feel unwell, seek medical advice immediately.

60 This material and its container must be disposed of as hazardous waste.

Special labeling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer.

Hazard description:**Canadian Hazard Symbols**

D2A - Very toxic material causing other toxic effects

**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

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

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 EINECS: 215-609-9	Carbon black ----- ☠ Carc. 2, H351	25-50%
CAS: 101-68-8 EINECS: 202-966-0	diphenylmethane-4,4'-di-isocyanate ☠ Xn R20-40-48/20; ☠ Xi R36/37/38-42/43 Carc. Cat. 3 ----- ☠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373 ☠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	0.1-1%

SVHC The mixture of substances contain no SVHC (Substances of Very High Concern, <http://echa.europa.eu>)**Additional information:**

For the wording of the listed risk phrases refer to section 16.

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

CA

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/13/2015

Reviewed on 03/13/2015

Trade name: DINITROL 9100

(Contd. of page 2)

4 First-aid measures

Description of first aid measures

After inhalation:

Supply fresh air; consult doctor in case of complaints.

Seek medical treatment in case of complaints.

After skin contact: Generally the product does not irritate the skin.

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.

7 Handling and storage

Handling:

Precautions for safe handling No special measures required.

Information about protection against explosions and fires: No special measures required.

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: None.

Specific end use(s) No further relevant information available.

CA

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/13/2015

Reviewed on 03/13/2015

Trade name: DINITROL 9100

(Contd. of page 3)

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

EL (Canada)	Long-term value: 3 mg/m ³ IARC 2B
EV (Canada)	Long-term value: 3.5 mg/m ³
PEL (USA)	Long-term value: 3.5 mg/m ³
REL (USA)	Long-term value: 3.5* mg/m ³ *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV (USA)	Long-term value: 3* mg/m ³ *inhalable fraction

101-68-8 diphenylmethane-4,4'-di-isocyanate

EL (Canada)	Long-term value: 0.005 ppm Ceiling limit value: 0.01 ppm Skin; S
EV (Canada)	Long-term value: 0.005 ppm Ceiling limit value: 0.02 ppm
PEL (USA)	Ceiling limit value: 0.2 mg/m ³ , 0.02 ppm
REL (USA)	Long-term value: 0.05 mg/m ³ , 0.005 ppm Ceiling limit value: 0.2* mg/m ³ , 0.02* ppm *10-min
TLV (USA)	Long-term value: 0.051 mg/m ³ , 0.005 ppm

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

Exposure controls

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.

Breathing equipment:



Use suitable respiratory protective device in case of insufficient ventilation.

Filter A

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 renewed use of the glove.

(Contd. on page 5)

-CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/13/2015

Reviewed on 03/13/2015

Trade name: **DINITROL 9100**

(Contd. of page 4)

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 through 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
Odour threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	270 °C

Flash point: 164 °C

Flammability (solid, gaseous): Not applicable.

Ignition temperature: > 300 °C

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: 1.14 g/cm³

Relative density Not determined.

Vapour density Not determined.

(Contd. on page 6)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/13/2015

Reviewed on 03/13/2015

Trade name: DINITROL 9100

(Contd. of page 5)

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.
Solvent content:	
Organic solvents:	0.0 %
Solids content:	99.6 %
Other information	No further relevant information available.

10 Stability and reactivity

Reactivity

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.

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	5203 mg/kg (rat)
Dermal	LD50	5232 mg/kg (rabbit)

101-68-8 diphenylmethane-4,4'-di-isocyanate

Oral	LD50	4700 mg/kg (rat)
Inhalative	LC50/ 4h	370 mg/l (rat)

Primary irritant effect:

on the skin: No irritant effect.

on the eye: No irritating effect.

Sensitization: Sensitization possible through inhalation.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful

Carcinogenic categories

IARC (International Agency for Research on Cancer)		
1333-86-4	Carbon black	2B
101-68-8	diphenylmethane-4,4'-di-isocyanate	3

(Contd. on page 7)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/13/2015

Reviewed on 03/13/2015

Trade name: **DINITROL 9100**

(Contd. of page 6)

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:****101-68-8 diphenylmethane-4,4'-di-isocyanate**

EC50 >100 mg/l (bacteria)

EC50/ 24h >1000 mg/l (daphnia)

LC50 > 100 mg/l (fish)

LC50/ 96h >1000 mg/l (fish)

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**DOT, TDG, ADN, IMDG, IATA** Void**UN proper shipping name****DOT, TDG, ADN, IMDG, IATA** Void**Transport hazard class(es)****DOT, TDG, ADN, IMDG, IATA**
Class Void

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/13/2015

Reviewed on 03/13/2015

Trade name: **DINITROL 9100**

(Contd. of page 7)

Packing group DOT, TDG, IMDG, IATA	Void
Environmental hazards: 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.

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 | diphenylmethane-4,4'-di-isocyanate

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65

Chemicals known to cause cancer:

28553-12-0 | di-"isononyl" phthalate

1333-86-4 | Carbon black

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.

Carcinogenicity categories

EPA (Environmental Protection Agency)

101-68-8 | diphenylmethane-4,4'-di-isocyanate

D, CBD

TLV (Threshold Limit Value established by ACGIH)

Carbon black

A4

dibutyltin dilaurate

A4

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

1333-86-4 | Carbon black

Canadian substance listings:

Canadian Domestic Substances List (DSL)

All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%)

101-68-8 | diphenylmethane-4,4'-di-isocyanate

(Contd. on page 9)

CA

Safety Data Sheet

acc. to OSHA HCS

Printing date 03/13/2015

Reviewed on 03/13/2015

Trade name: DINITROL 9100

(Contd. of page 8)

Canadian Ingredient Disclosure list (limit 1%)

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

National regulations:

Technical instructions (air):

Class	Share in %
I	0.1-1

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

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

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

R20 Harmful by inhalation.

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

R40 Limited evidence of a carcinogenic effect.

R42/43 May cause sensitization by inhalation and skin contact.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Department issuing MSDS: Entwicklung

Contact: msds@dinol.com

Date of preparation / last revision 03/13/2015 / -

CA