Safety Data Sheet
according to GHS of USA and OSHA HCS

Printing date 10/09/2015 *Reviewed on 10/09/2015*

*
1 Identification

Product identifier

Trade name: DINITROL 512 B
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: *Giftnotruf D-Berlin +49(0)30 30686 790 Beratung in Deutsch und Englisch.*

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2 Hazard(s) identification

Classification of the substance or mixture

GHS08 Health hazard

Carc. 2	*H351 Suspected of causing cancer.*
Repr. 1A	*H360 May damage fertility or the unborn child.*
STOT RE 2	*H373 May cause damage to organs through prolonged or repeated exposure.*

GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

GHS07

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

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

N; Dangerous for the environment

R51/53: 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 was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

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

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Hazard pictograms

GHS07 GHS08 GHS09

Signal word *Danger*

Hazard-determining components of labeling:
Carbon black
diethylmethylbenzenediamine
Dibutylbis(dodecylthio)-stannan
1-dodecycl-2-pyrrolidone
Hazard statements
May cause an allergic skin reaction.
Suspected of causing cancer.
May damage fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.
Precautionary statements
Wear protective gloves.
Wash contaminated clothing before reuse.
Store locked up.
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 = *1*
Fire = 1
Reactivity = 0

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

*
3 Composition/information on ingredients

Chemical characterization: Mixtures
Description: *Adhesive*

Dangerous components:		
CAS: 68479-98-1 *EINECS: 270-877-4*	*diethylmethylbenzenediamine* *Xn R21/22-48/22; Xi R36; N R50/53* *STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410;* *Acute Tox. 4, H302; Acute Tox. 4, H312; Eye Irrit. 2, H319*	*2.5-5%*

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CAS: 1333-86-4 EINECS: 215-609-9	Carbon black Carc. 2, H351	1-5%
CAS: 2687-96-9 ELINCS: 403-730-1	1-dodecycl-2-pyrrolidone C R34; Xi R43; N R50/53 Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317	0.25-<1%
CAS: 1185-81-5 EINECS: 214-688-7	Dibutylbis(dodecylthio)-stannan T R60-61-25; Xn R21/22-48-68; Xi R38-43; N R50/53 Muta. 2, H341; Repr. 1A, H360; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H312; Skin Irrit. 2, H315; Skin Sens. 1, H317	≤0.1%

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

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.

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6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions:
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
Methods and material for containment and cleaning up: Pick up mechanically.
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.

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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.
Maximum storage temperature: < 35 °C
Minimum storage temperature: > 0 °C
Storage temperature: 0 - 35 °C
Specific end use(s) No further relevant information available.

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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	Long-term value: 3.5 mg/m³
REL	Long-term value: 3.5* mg/m³ *0.1 in presence of PAHs;See Pocket Guide Apps.A+C
TLV	Long-term value: 3* mg/m³ *inhalable fraction

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

Exposure controls
Personal protective equipment:
General protective and hygienic measures: Wash hands before breaks and at the end of work.
Breathing equipment:

Not required.

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

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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

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9 Physical and chemical properties

Information on basic physical and chemical properties	
General Information	
Appearance:	
Form:	*Fluid*
Color:	*Black*
Odor:	*Characteristic*
Odour 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:	*190 °C (374 °F)*
Flammability (solid, gaseous):	*Not applicable.*
Ignition temperature:	*420 °C (788 °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):	*1.15 g/cm³ (9.597 lbs/gal)*
Relative density	*Not determined.*
Vapour density	*Not determined.*
Evaporation rate	*Not determined.*

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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:	99.5 %
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.

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11 Toxicological information

Information on toxicological effects
Acute toxicity:

LD/LC50 values that are relevant for classification:		
Oral	LD50	3172 mg/kg (rat)
Dermal	LD50	3667 mg/kg

68479-98-1 diethylmethylbenzenediamine		
Oral	LD50	738 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)

2687-96-9 1-dodecycl-2-pyrrolidone		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)

Primary irritant effect:
on the skin: No irritant effect.
on the eye: No irritating effect.
Sensitization: No sensitizing effects known.
Additional toxicological information:

Carcinogenic categories

IARC (International Agency for Research on Cancer)		
1333-86-4	Carbon black	2B

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

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

12 Ecological information

Toxicity
Aquatic toxicity: No further relevant information available.
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.
Ecotoxical effects:
Remark: Toxic for fish
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.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
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.

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14 Transport information

UN-Number	
DOT	Void
ADR, IMDG, IATA	UN3082
UN proper shipping name	
DOT	Void
ADR	UN3082 Environmentally hazardous substances, liquid, n.o.s. (diethylmethylbenzenediamine, 1-dodecycl-2-pyrrolidone)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (diethylmethylbenzenediamine, 1-dodecycl-2-pyrrolidone), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (diethylmethylbenzenediamine, 1-dodecycl-2-pyrrolidone)

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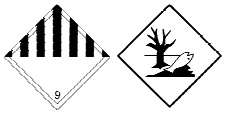
Transport hazard class(es)

DOT
Class Void

ADR

Class 9 (M6) Miscellaneous dangerous substances and articles
Label 9

IMDG, IATA



Class 9 Miscellaneous dangerous substances and articles
Label 9

Packing group
DOT Void
ADR, IMDG, IATA III

Environmental hazards: Product contains environmentally hazardous substances.
Marine pollutant: Yes
Symbol (fish and tree)
Special marking (ADR): Symbol (fish and tree)
Special marking (IATA): Symbol (fish and tree)

Special precautions for user Warning: Miscellaneous dangerous substances and articles
Danger code (Kemler): 90
EMS Number: F-A,S-F

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

Transport/Additional information:

ADR
Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

IMDG
Limited quantities (LQ) 5L
Excepted quantities (EQ) Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation": UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE, 1-DODECYCL-2-PYRROLIDONE), 9, III, (E)

US

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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):
None of the ingredients is listed.

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.

Cancerogenity categories

EPA (Environmental Protection Agency)
None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

Carbon black	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%)
None of the ingredients is listed.

Canadian Ingredient Disclosure list (limit 1%)

1333-86-4	Carbon black

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

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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 10/09/2015 / -

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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
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Muta. 2: Germ cell mutagenicity, Hazard Category 2
Carc. 2: Carcinogenicity, Hazard Category 2
Repr. 1A: Reproductive toxicity, Hazard Category 1A
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
**** Data compared to the previous version altered.***