Safety data sheet

acc. to EU regulations 1272/2008 and 1907/2006 incl. all amendments

Printing date 17.03.2016 *Revision: 17.03.2016*

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: DINITROL 530

1.2 Relevant identified uses of the substance or mixture and uses advised against

Sector of Use SU3, SU17, SU21, SU22
Product category PC1 Adhesives, sealants
Process category PROC1-5, PROC7, PROC8a, PROC8b, PROC9-11, PROC13-14, PROC 19, PROC21
Environmental release category ERC5, ERC8c, ERC8d, ERC8f
Article category Not applicable
Application of the substance / the mixture Primer

1.3 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
Further information obtainable from: msds@dinol.com

1.4 Emergency telephone number:

Giftnotruf D-Berlin +49(0)30 30686 790 Beratung in Deutsch und Englisch.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H336 May cause drowsiness or dizziness.

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

Xi; Irritant

R36: Irritating to eyes.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

F; Highly flammable

R11: Highly flammable.
R67: 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.
Has a narcotising effect.

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Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the CLP regulation.
Hazard pictograms

GHS02 GHS07

Signal word *Danger*

Hazard-determining components of labelling:
butanone
HMDI-Oligomere
n-butyl acetate
Hazard statements
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.
Precautionary statements
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
Additional information:
EUH204 Contains isocyanates. May produce an allergic reaction.
2.3 Other hazards
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*

SECTION 3: Composition/information on ingredients

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

Dangerous components:		
CAS: 78-93-3 *EINECS: 201-159-0*	*butanone* *Xi R36; F R11* *R66-67* *Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336*	*25-50%*
CAS: 123-86-4 *EINECS: 204-658-1*	*n-butyl acetate* *R10-66-67* *Flam. Liq. 3, H226; STOT SE 3, H336*	*10-<25%*

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CAS: 28182-81-2 NLP: 500-060-2	HMDI-Oligomere Xn R20; Xi R37; Xi R43 Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	1-5%
CAS: 872-50-4 EINECS: 212-828-1	N-methyl-2-pyrrolidone Xi R36/37/38 Repr. Cat. 2 Repr. 1B, H360D; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	1-<5%

SVHC	
872-50-4	N-methyl-2-pyrrolidone

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

SECTION 4: First aid measures

4.1 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.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Seek immediate medical advice.
4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
For safety reasons unsuitable extinguishing agents:
Water
Water with full jet
5.2 Special hazards arising from the substance or mixture No further relevant information available.
5.3 Advice for firefighters
Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
6.2 Environmental precautions:
Prevent seepage into sewage system, workpits and cellars.
Do not allow to enter sewers/ surface or ground water.
6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
6.4 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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SECTION 7: Handling and storage

7.1 Precautions 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.

7.2 Conditions for safe storage, including any incompatibilities
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.
Maximum storage temperature: *< 35 °C*
Minimum storage temperature: *> 0 °C*
Storage temperature: *0 - 35 °C*
Storage class: *3*
7.3 Specific end use(s) *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
78-93-3 butanone	
AGW (DACH)	*Long-term value: 600 mg/m³, 200 ppm* *1(I);DFG, EU, H, Y*
MAK (Switzerland)	*Short-term value: 590 mg/m³, 200 ppm* *Long-term value: 590 mg/m³, 200 ppm* *H B SSc;*
123-86-4 n-butyl acetate	
AGW (DACH)	*Long-term value: 300 mg/m³, 62 ppm* *2(I);Y, AGS*
MAK (Switzerland)	*Short-term value: 960 mg/m³, 200 ppm* *Long-term value: 480 mg/m³, 100 ppm* *SSc;*
872-50-4 N-methyl-2-pyrrolidone	
AGW (DACH)	*Long-term value: 82 mg/m³, 20 ppm* *2(I);EU, DFG, AGS, H, Y, 11, 19*
MAK (Switzerland)	*Short-term value: 160 mg/m³, 40 ppm* *Long-term value: 80 mg/m³, 20 ppm* *H SSc;*
Ingredients with biological limit values:	
78-93-3 butanone	

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BGW (DACH)	*5 mg/l* *Untersuchungsmaterial: Urin* *Probennahmezeitpunkt: Expositionsende bzw. Schichtende* *Parameter: 2-Butanon*
BAT (Switzerland)	*5 mg/l* *Untersuchungsmaterial: Urin* *Probennahmezeitpunkt: Expositionsende bzw. Schichtende* *Biol. Parameter: 2-Butanon (MEK)*
872-50-4 N-methyl-2-pyrrolidone	
BGW (DACH)	*150 mg/l* *Untersuchungsmaterial: Urin* *Probennahmezeitpunkt: Expositionsende bzw. Schichtende* *Parameter: 5-Hydroxy-N-methyl-2-pyrrolidon*

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

8.2 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.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
Respiratory protection: *Filter A*
Protection of hands:

Protective gloves (DIN EN 374)

Chemical resistant protective gloves with CE-labeling
To minimise 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
Butyl rubber
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 (DIN EN 166)

Body protection:

Protective work clothing

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information	
Appearance:	
Form:	Liquid
Colour:	Black
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	79 °C
Flash point:	-4 °C
Flammability (solid, gaseous):	Not applicable.
Ignition temperature:	> 300 °C
Decomposition temperature:	Not determined.
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:	1,8 Vol %
Upper:	11,5 Vol %
Vapour pressure at 20 °C:	105 hPa
Density at 20 °C:	0,94 g/cm³
Relative density	Not determined.
Vapour 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.
Solvent content:	
Organic solvents:	70,5 %
Solids content:	28,4 %
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.
10.2 Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions No dangerous reactions known.
10.4 Conditions to avoid No further relevant information available.
10.5 Incompatible materials: No further relevant information available.

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10.6 Hazardous decomposition products: *No dangerous decomposition products known.*

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity *Based on available data, the classification criteria are not met.*

LD/LC50 values relevant for classification:		
Inhalative	*LC50/ 4h*	*239 mg/l*

Primary irritant effect:
Skin corrosion/irritation *Based on available data, the classification criteria are not met.*
Serious eye damage/irritation
Causes serious eye irritation.
Respiratory or skin sensitisation
May cause an allergic skin reaction.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity *Based on available data, the classification criteria are not met.*
Carcinogenicity *Based on available data, the classification criteria are not met.*
Reproductive toxicity *Based on available data, the classification criteria are not met.*
STOT-single exposure
May cause drowsiness or dizziness.
STOT-repeated exposure *Based on available data, the classification criteria are not met.*
Aspiration hazard *Based on available data, the classification criteria are not met.*

SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: *No further relevant information available.*
12.2 Persistence and degradability *No further relevant information available.*
12.3 Bioaccumulative potential *No further relevant information available.*
12.4 Mobility in soil *No further relevant information available.*
Additional ecological information:
General notes:
Water hazard class 1 (German Regulation) (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.
12.5 Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*
12.6 Other adverse effects *No further relevant information available.*

SECTION 13: Disposal considerations

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

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

SECTION 14: Transport information

14.1 UN-Number
ADR, IMDG, IATA *UN1993*

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14.2 UN proper shipping name

ADR	FLAMMABLE LIQUID, N.O.S. (vapour pressure at 50 °C not more than 110 kPa) (ETHYL METHYL KETONE (METHYL ETHYL KETONE), BUTYL ACETATES)
IMDG	FLAMMABLE LIQUID, N.O.S. (ETHYL METHYL KETONE (METHYL ETHYL KETONE), BUTYL ACETATES)
IATA	Flammable liquid, n.o.s. (Ethyl methyl ketone, Butyl acetates)

14.3 Transport hazard class(es)

ADR

Class	3 (F1) Flammable liquids.
Label	3

IMDG, IATA

Class	3 Flammable liquids.
Label	3

14.4 Packing group

ADR, IMDG, IATA	II

14.5 Environmental hazards:

Marine pollutant:	No

14.6 Special precautions for user	Warning: Flammable liquids.
Danger code (Kemler):	33
EMS Number:	F-E,S-E
Stowage Category	B

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
Transport category	2
Tunnel restriction code	D/E

IMDG

Limited quantities (LQ)	1L
Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

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UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (VAPOUR PRESSURE AT 50 °C NOT MORE THAN 110 KPA) (ETHYL METHYL KETONE (METHYL ETHYL KETONE), BUTYL ACETATES), 3, II

SECTION 15: Regulatory information

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

Directive 2012/18/EU
Named dangerous substances - ANNEX I None of the ingredients is listed.
Seveso category P5c FLAMMABLE LIQUIDS
Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t

National regulations:

Technical instructions (air):

Class	Share in %
NK	50-100

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57	
872-50-4	N-methyl-2-pyrrolidone

EU-VOC: 70,52 %
15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H360D May damage the unborn child.

R10 Flammable.
R11 Highly flammable.
R20 Harmful by inhalation.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
R37 Irritating to respiratory system.
R43 May cause sensitisation by skin contact.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

Department issuing MSDS: Entwicklung
Contact: msds@dinol.com
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)

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IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
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
Repr. 1B: Reproductive toxicity, Hazard Category 1B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3