

Safety data sheet

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

Printing date 14.10.2015

Revision: 14.10.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name: DINITROL 560 PVC-ACTIVATOR****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.



GHS08 health hazard

Repr. 1B H360D May damage the unborn child.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

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

T; Toxic

R61: May cause harm to the unborn child.



Xi; Irritant

R36: Irritating to eyes.

(Contd. on page 2)

DACH

Safety data sheet

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

Printing date 14.10.2015

Revision: 14.10.2015

Trade name: DINITROL 560 PVC-ACTIVATOR

(Contd. of page 1)



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.

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



GHS08

Signal word *Danger*

Hazard-determining components of labelling:

N-Ethyl-2-Pyrrolidone

butanone

Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H360D May damage the unborn child.

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.

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:

(Contd. on page 3)

Safety data sheet

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

Printing date 14.10.2015

Revision: 14.10.2015

Trade name: DINITROL 560 PVC-ACTIVATOR

(Contd. of page 2)

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%
CAS: 2687-91-4 EINECS: 220-250-6	N-Ethyl-2-Pyrrolidone T Repr. Cat. 2 R61 Repr. 1B, H360D	≤10%

Additional information: For the wording of the listed risk phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures***After skin contact:* Generally the product does not irritate the skin.*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).

Dispose contaminated material as waste according to item 13.

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.

(Contd. on page 4)

DACH

Trade name: DINITROL 560 PVC-ACTIVATOR

See Section 13 for disposal information.

(Contd. of page 3)

SECTION 7: Handling and storage

7.1 Precautions for safe handling

No special measures required.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.

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

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/m ³ , 200 ppm 1(I);DFG, EU, H, Y
MAK (Switzerland)	Short-term value: 590 mg/m ³ , 200 ppm Long-term value: 590 mg/m ³ , 200 ppm H B SSc;

123-86-4 n-butyl acetate

AGW (DACH)	Long-term value: 300 mg/m ³ , 62 ppm 2(I);Y, AGS
MAK (Switzerland)	Short-term value: 960 mg/m ³ , 200 ppm Long-term value: 480 mg/m ³ , 100 ppm SSc;

4435-53-4 3-methoxybutyl acetate

MAK (DACH)	vgl.Abschn.IIb
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(Contd. on page 5)

DACH

Safety data sheet

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

Printing date 14.10.2015

Revision: 14.10.2015

Trade name: DINITROL 560 PVC-ACTIVATOR

(Contd. of page 4)

Ingredients with biological limit values:**78-93-3 butanone**

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)

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.

Store protective clothing separately.

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

DACH

(Contd. on page 6)

Safety data sheet

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

Printing date 14.10.2015

Revision: 14.10.2015

Trade name: DINITROL 560 PVC-ACTIVATOR

(Contd. of page 5)

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Liquid
Colour:	Yellowish
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:** 370 °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:	1,3 Vol %
Upper:	11,5 Vol %

Vapour pressure at 20 °C: 105 hPa

Density at 20 °C:	0,99 g/cm ³
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:** 52,7 %**Solids content:** 36,8 %**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.

(Contd. on page 7)

Safety data sheet

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

Printing date 14.10.2015

Revision: 14.10.2015

Trade name: DINITROL 560 PVC-ACTIVATOR

(Contd. of page 6)

- 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.
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	51 mg/l (rat)
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2687-91-4 N-Ethyl-2-Pyrrolidone

Oral	LD50	3200 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/ 4h	5,1 mg/l (rat)

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 Based on available data, the classification criteria are not met.**CMR effects (carcinogenicity, 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**

May damage the unborn child.

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:****2687-91-4 N-Ethyl-2-Pyrrolidone**

LC50/ 96h	>446 - <999 mg/l (fish)
EC50/ 12h	> 1000 mg/l (bacteria)

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.

(Contd. on page 8)

Safety data sheet

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Printing date 14.10.2015

Revision: 14.10.2015

Trade name: DINITROL 560 PVC-ACTIVATOR

(Contd. of page 7)

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.

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 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number****ADR, IMDG, IATA**

UN1866

14.2 UN proper shipping name**ADR**

UN1866 RESIN SOLUTION (vapour pressure at 50 °C not more than 110 kPa)

IMDG, IATA

RESIN SOLUTION

14.3 Transport hazard class(es)**ADR****Class
Label**3 (F1) Flammable liquids.
3**IMDG, IATA****Class
Label**3 Flammable liquids.
3**14.4 Packing group****ADR, IMDG, IATA**

II

14.5 Environmental hazards:

Not applicable.

14.6 Special precautions for user

Warning: Flammable liquids.

Danger code (Kemler):

33

EMS Number:F-E,S-E

(Contd. on page 9)

DACH

Safety data sheet

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Printing date 14.10.2015

Revision: 14.10.2015

Trade name: DINITROL 560 PVC-ACTIVATOR

(Contd. of page 8)

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)**

5L

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)**

5L

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation":

UN 1866 RESIN SOLUTION (VAPOUR PRESSURE AT 50 °C NOT MORE THAN 110 KPA), 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.**Sveso 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**The mixture of substances contain no SVHC (Substances of Very High Concern, <http://echa.europa.eu>)**EU-VOC:** 52,73 %**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.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

(Contd. on page 10)

DACH

Safety data sheet
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Trade name: DINITROL 560 PVC-ACTIVATOR

(Contd. of page 9)

*H360D May damage the unborn child.**R10 Flammable.**R11 Highly flammable.**R36 Irritating to eyes.**R61 May cause harm to the unborn child.**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)**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**Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2**Repr. 1B: Reproductive toxicity, Hazard Category 1B**STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*

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