

Safety Data Sheet as per regulation (EC) 1907/2006

Commercial Product Name : ALBERDINGK® U 9700

Article-No. : 279700

Revision Date : 28.10.2016

Replaces version from : 08.04.2016

Version : 6.0/en

Print date : 31.10.2016



ALBERDINGK BOLEY

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

1.1 Product identifier

Commercial Product Name **ALBERDINGK® U 9700**

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

Relevant identified uses Binding agent

Recommended restrictions No information available.

1.3 Details of the supplier of the safety data sheet

Company designation Alberdingk Boley GmbH
Düsseldorfer Str. 53
47829 Krefeld, Germany
Telephone : +49 2151 528-0
FAX : +49 2151 573-643
Email : trm@alberdingk-boley.de
Internet : www.alberdingk-boley.de

1.4 Emergency telephone number

* Emergency telephone number

USA

Emergency CONTACT (24-Hour-Number): GBK GmbH +49 6132-84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335

2.2 Label elements

Hazard pictogram



GHS07

Signal word

Warning

Hazardous component(s) to be indicated on label

triethylamine

H-statement(s)

H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.

P-statement(s)

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P312: Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313: If eye irritation persists: Get medical advice/attention.

* Further information

EUH208: Contains 1,2-benzisothiazol-3(2H)-one; mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

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2.3 Other hazards

Results of PBT and vPvB assessment The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixture

Hazardous ingredients

Ingredient		Classification (EC) 1272/2008	Concentration
triethylamine	CAS No. : 121-44-8 EC-No. : 204-469-4 Index-No. : 612-004-00-5 REACH No. : 01-2119475467-26-XXXX	Flam. Liq. 2; H225 Acute Tox. 4; H302 Acute Tox. 3; H311 Acute Tox. 3; H331 Skin Corr. 1A; H314 STOT SE 3; H335 Eye Dam. 1; H318	1.0 – 1.5 % by weight
1,2-benzisothiazol-3(2H)-one	CAS No. : 2634-33-5 EC-No. : 220-120-9 Index-No. : 613-088-00-6	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400	< 0.01 % by weight
mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	CAS No. : 55965-84-9 Index-No. : 613-167-00-5	Acute Tox. 3 *; H301 Acute Tox. 3 *; H311 Acute Tox. 3 *; H331 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	< 0.0015 % by weight

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
If inhaled	Inhaling of droplets in the air or aerosols may lead to irritations of the respiratory tract . If experiencing respiratory symptoms: Immediately call a doctor.
In case of skin contact	Wash with plenty of water/ soap. In case of skin reactions, consult a physician.
In case of eye contact	In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
If swallowed	Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	May cause sensitisation by skin contact. Irritation to respiratory tract Irritation to eyes Skin corrosion/irritation
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4.3 Indication of any immediate medical attention and special treatment needed

Immediate medical attention	First Aid, decontamination, treatment of symptoms.
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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO2), Extinguishing powder, Water spray jet
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In case of major fire and large quantities: Water spray jet, alcohol resistant foam
Co-ordinate fire-fighting measures to the fire surroundings.

5.2 Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases

Hazardous decomposition byproducts may form with exposure to high temperatures.
In case of fire may be liberated: carbon monoxide, Hydrogen cyanide (hydrocyanic acid), Gases/vapours, toxic

5.3 Advice for firefighters

Special protective equipment for firefighting

In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Do not get in eyes, on skin, or on clothing.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Use personal protection equipment.

6.2 Environmental precautions

Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

When using do not eat or drink.
Provide good ventilation.
Avoid: Generation/formation of aerosols
Avoid contact with skin and eyes.
Remove contaminated clothing and wash it before reuse.

Advice on protection against fire and explosion

No special measures are necessary.

7.2 Conditions for safe storage, including any incompatibilities

Storage specifications

Protect against: Frost
Keep container tightly closed.

TRGS 510

12 – Non-combustible liquids

7.3 Specific end use(s)

Specific use(s)

No information available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Triethylamine

Europe

Long-term exposure value / mg/m ³	Long-term exposure value / ppm	Short-term exposure value / mg/m ³	Short-term exposure value / ppm	Note	Issuing date	Source
8.4	2	12.6	3	Skin	2000/39	24

Source : 24 - DIRECTIVE 2009/161/EU

USA (ACGIH)

Remarks	Short term exposure limit	Long-term value	Basis	Source
Not classifiable as a Human Carcinogen Danger of cutaneous absorption	3 ppm	1 ppm	Irritation, vision	27

Source : 27 - ACGIH Threshold Limit Values for Chemical Substances 2008

DNEL

Value	Target group	Source
8,4 mg/m ³	Worker - inhalative, long-term - systemic	100

Source : 100 - supplier/own data/literatur

PNEC

Value	Target group	Source
0,064 mg/l	PNEC aquatic, freshwater	100
0,0064 mg/l	PNEC aquatic, marine water	100
0,1992 mg/kg	PNEC sediment, freshwater	100
2,361 mg/kg	PNEC soil	100
100 mg/l	PNEC sewage treatment plant (STP)	100
0,064 mg/l	PNEC aquatic, intermittent release	100

Source : 100 - supplier/own data/literatur

8.2 Exposure controls

Respiratory protection

Triethylamine is released when the substance is applied and dried.

Provide adequate ventilation.

In case of inadequate ventilation wear respiratory protection. Filter type:: A, K

Hand protection

Wear suitable gloves.

Suitable material :

NBR (Nitrile rubber)

Material thickness :

>= 0,4 mm

Break through time :

> 480 min

Suitable material :

FKM (fluoro rubber)

Material thickness :

>= 0,7 mm

Break through time :

> 480 min.

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Eye protection Wear closed protection glasses.
Skin and body protection Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	whitish
Odour	characteristic
Odour threshold	not determined
pH	7,5–8,5
Measuring method :	DIN ISO 976
Melting point [°C] / Freezing point [°C]	ca. 0 °C
Boiling point [°C]	100 °C
Flash point [°C]	not applicable
Evaporation rate [kg/(s*m ²)]	not determined
Flammability (solid, gas)	not applicable
Explosion limits [Vol-%]	
Lower limit :	not determined
Upper limit :	not determined
Vapour pressure [kPa]	2,3
Temperature :	20°C
Vapour density	not determined
Density [g/cm ³]	ca. 1,05
Temperature :	20°C
Measuring method :	DIN 53217
Relative density	not determined
Water solubility [g/l]	completely miscible
Partition coefficient n-octanol /water (log P O/W)	not determined
Autoignition temperature [°C]	not applicable
Decomposition temperature [°C]	not determined
Viscosity, dynamic	20–200
unit :	mPas
Measuring method :	ISO 1652, Brookfield RVT
Risk of explosion.	not explosive.
Oxidising properties	not applicable
9.2 Other information	
Ignition temperature [°C]	not determined

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Solid content [%] 34-36
Measuring method : DIN EN ISO 3251

SECTION 10: Stability and reactivity

10.1 Reactivity

Reactivity No hazardous reaction when handled and stored according to provisions.

10.2 Chemical stability

Chemical stability Triethylamine is released when the substance is applied and dried.

10.3 Possibility of hazardous reactions

Hazardous reactions No information available.

10.4 Conditions to avoid

Conditions to avoid No information available.

10.5 Incompatible materials

Materials to avoid No information available.

10.6 Hazardous decomposition products

Hazardous decomposition products No information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Hazardous ingredients

Triethylamine

Oral toxicity [mg/kg]	Test criterion	Test species	Source
730	LD50	Rat	100

Source : 100 – supplier/own data/literatur

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
580	LD50	Rabbit	100

Source : 100 – supplier/own data/literatur

LC50 Inhalation 4h for vapours [mg/l]	Test criterion	Test species	Source
7,1	LC50	Rat	100

Source : 100 – supplier/own data/literatur

Specific target organ toxicity (single exposure) [mg/kg]	Specific effects	Source
	Irritation to respiratory tract	100

Source : 100 – supplier/own data/literatur

adipohydrazide

Oral toxicity [mg/kg]	Test criterion	Test species	Source
>2000	LD50	Rat	100

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Source : 100 – supplier/own data/literatur

LC50 Inhalation 4h for dusts and sprays [mg/l]	Test criterion	Test species	Source
>5,3	LC50	Rat	100

Source : 100 – supplier/own data/literatur

1,2-benzisothiazolin-3-one

Oral toxicity [mg/kg]	Test criterion	Test species	Source
1193	LD50	Rat	100

Source : 100 – supplier/own data/literatur

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
4115	LD50	Rat	100

Source : 100 – supplier/own data/literatur

Subacute, subchronic, chronic toxicity	No data available
Irritant effect on skin	Irritant.
Irritant effect on eyes	Irritant.
Irritant effect on the respiratory tract	Irritant.
Sensitization	May cause sensitisation by skin contact.
Carcinogenic effects	Under certain conditions, triethylamine may form nitrosamines when exposed to nitrosating agents (e.g. nitrites, nitrogen oxides). Nitrosamines have proven to be carcinogenous in experiments with animals.
Mutagenicity	No data available
Reproduction toxicity	No data available
Caustic effect	Irritating to eyes, respiratory system and skin.
Dermal absorption data	triethylamine: The product is skin resorptive.

11.2 Additional information

Experience in practice	Triethylamine causes damage to the liver and kidneys of experimental animals.
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SECTION 12: Ecological information

12.1 Toxicity

Hazardous ingredients

Triethylamine

Toxicity to fish [mg/l]	Test criterion	Test species	Measuring method	Exposure duration	Source
36	LC50	Oncorhynchus mykiss (Rainbow trout)	-	96h	100

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Source : 100 – supplier/own data/literatur

Toxicity to daphnia [mg/l]	Test criterion	Test species	Measuring method	Exposure duration	Source
17	LC50	Ceriodaphnia spec	semistatic	48h	100

Source : 100 – supplier/own data/literatur

NOEC (fish) [mg/l]	Test criterion	Test species	Measuring method	Exposure duration	Source
3,2	NOEC	Oncorhynchus mykiss (Rainbow trout)	semistatic	60d	100

Source : 100 – supplier/own data/literatur

NOEC (daphnia) [mg/l]	Test criterion	Test species	Measuring method	Exposure duration	Source
7,1	NOEC	Ceriodaphnia spec	semistatic	7d	100

Source : 100 – supplier/own data/literatur

Toxicity to bacteria [mg/l]	Test criterion	Test species	Measuring method	Remarks	Exposure duration	Source
95	EC50	Pseudomonas putida	DIN 38412 / part 8	aerobic.	17h	100

Source : 100 – supplier/own data/literatur

adipohydrazide

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
> 100	LC50	Cyprinus carpio (Common Carp)	96h	100

Source : 100 – supplier/own data/literatur

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
> 106	EC50	Daphnia magna (Big water flea)	48h	100

Source : 100 – supplier/own data/literatur

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
9,19	EC50	Pseudokirchneriella subcapitata	72h	100

Source : 100 – supplier/own data/literatur

1,2-benzisothiazolin-3-one

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
2,18	LC50	Oncorhynchus mykiss (Rainbow trout)	96h	100

Source : 100 – supplier/own data/literatur

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
2,94	EC50	Daphnia magna	48h	100

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Source : 100 – supplier/own data/literatur

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
0,11	ErC50	Pseudokirchneriella subcapitata	72h	100

Source : 100 – supplier/own data/literatur

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
0,188	LC50	Oncorhynchus mykiss (Rainbow trout)	96h	100

Source : 100 – supplier/own data/literatur

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
0,126	EC50	Daphnia magna	48h	100

Source : 100 – supplier/own data/literatur

Toxicity to algae [mg/l]	Test criterion	Test species	Exposure duration	Source
0,027	EC50	Selenastrum capricornutum	72h	100

Source : 100 – supplier/own data/literatur

NOEC (fish) [mg/l]	Test criterion	Test species	Duration of dosage	Measuring method	Source
0,098	NOEC	Oncorhynchus mykiss (Rainbow trout)	28d	OECD 210	100

Source : 100 – supplier/own data/literatur

NOEC (daphnia) [mg/l]	Test criterion	Test species	Duration of dosage	Measuring method	Source
0,004	NOEC	Daphnia magna (Big water flea)	21d	OECD 211	100

Source : 100 – supplier/own data/literatur

NOEC (algae) [mg/l]	Test criterion	Test species	Duration of dosage	Measuring method	Source
0,0012	NOEC	Pseudokirchneriella subcapitata	72h	OECD 201	100

Source : 100 – supplier/own data/literatur

12.2 Persistence and degradability

Biodegradability

No data on the mixture is available. Triethylamine is slightly biodegradable (according to OECD criteria).

12.3 Bioaccumulative potential

Bioaccumulation

No data available

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12.4 Mobility in soil

Mobility No data available

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Other adverse effects

Environmental hazards No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal considerations Do not dispose of with household waste. Do not allow to enter drains. Dispose of waste according to applicable legislation.

Uncleaned empty packaging Handle contaminated packages in the same way as the substance itself.

Suitable cleaning agents Water (with cleaning agent)
Retain contaminated washing water and dispose it.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
14.1 UN-No	not applicable	not applicable	not applicable
14.2 UN proper shipping name	Non dangerous good	Non dangerous good	Non dangerous good
14.3 Transport hazard class(es)	not applicable	not applicable	not applicable
14.4 Packaging group	not applicable	not applicable	not applicable
14.5 Environmental hazards	not applicable	not applicable	not applicable

14.6 Special precautions for user

Precautions not applicable

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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

SECTION 15: Regulatory information

15.2 Chemical safety assessment

Safety assessment Not applicable

SECTION 16: Other information

Relevant H-phrases
EUH208: Contains 1,2-benzisothiazol-3(2H)-one; mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.
H225: Highly flammable liquid and vapour.
H301: Toxic if swallowed.
H302: Harmful if swallowed.
H311: Toxic in contact with skin.
H314: Causes severe skin burns and eye damage.

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H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H331: Toxic if inhaled.
H335: May cause respiratory irritation.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Wording of the hazard classes

Skin Irrit.: Skin irritation
Eye Irrit.: Serious eye irritation
STOT SE: Specific target organ toxicity – single exposure
Flam. Liq.: Flammable liquid
Acute Tox.: Acute toxicity
Skin Corr.: Skin corrosion
Eye Dam.: Serious eye damage
Skin Sens.: Skin sensitization
Aquatic Acute: Hazardous to the aquatic environment
Aquatic Chronic: Hazardous to the aquatic environment

Modifications since last version

Modifications of the previous version are denoted with an asterisk (*).

Department issuing safety data sheet

TRM

Recommended restrictions

No information available.

This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.