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

1.1. Product identifier

Trade name/designation : ALUMINIUM PASTE DEG1

Product code : AA (6, 6-3, 9, 9-3, 10-3) - A (4/F, 8/F) - AG (6, 8, 10) - AM (4, 5, 6, 9) - AP6/F - AT (4, 6) - ATF/5 - B40 - BH (6, 6R, 10) - BP6/F - BTF (1, 2, 4, 5, 5R, 6, 9, 10) - C60 - GT8 - OT (1, 4, 5, 6, 9, 9-10) - OTF (1, 4, 5, 6, 9, 10) - OT (4R, 5R, 6R, 9R) - PR6G - YM (2, 9) - YT (2, 5) - YTI/2 /
DEG1 / 65-35, 70-30, 75-25

Formula : Al

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

Main use category : Industrial uses, Professional uses .

1.3. Details of the supplier of the safety data sheet

Company : AVL METAL POWDERS n.v.
Elleboogstraat 7
B-8500 Kortrijk , Belgium, Europe
Telephone +32 (0)56 22 00 21
Telefax: +32 (0)56 22 64 14
E-mail: sales@avlmetalpowders.com
Website: www.avlmetalpowders.com
VAT: BE 0405 375 371 - RPR Kortrijk

1.4. Emergency telephone number

Emergency telephone : +32 (0)475 38 36 83 (This telephone number is available 24 hours per day, 7 days per week.)

IRELAND (REPUBLIC OF)
National Poisons Information Centre
Beaumont Hospital +353 18 37 99 64/+353 1 809 21 66

UNITED KINGDOM
National Poisons Information Service
(Newcastle Centre) 0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
Regional Drugs and Therapeutics Centre,
Wolfson Unit

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EU) 1272/2008


CLP-Classification : The product is classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

Acute Tox. 4 (Oral) H302
STOT RE 2 H373

Full text of H-phrases: see section 16

2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC

Classification : This mixture is classified as hazardous according to 1999/45/EC.
Xn; R22
Xn; R48/22

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Full text of R-phrases: see section 16

2.2. Label elements

2.2.1. Labelling according to Regulation (EU) 1272/2008

Hazard pictograms :



GHS07

GHS08

Signal word :

Warning

Contains :

2,2' -oxybisethanol, diethylene glycol

Hazard statements :

H302 - Harmful if swallowed.

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

Precautionary statements :

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P264 - Wash skin thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.

P314 - Get medical advice/attention if you feel unwell.

P330 - Rinse mouth.

P501 - Dispose of contents/ container to an approved waste disposal plant.

2.2.2. Labelling according to Directives (67/548 - 1999/45)

Not relevant

2.3. Other hazards

Other hazards :

PBT/vPvB data

Not applicable

In dry state:

Risk of dust explosion.

SECTION 3: Composition/information on ingredients

3.1. Substances


Not applicable

3.2. Mixtures

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
Aluminium (1)	(CAS No.) 7429-90-5 (EC No) 231-072-3 (EC Index) 013-001-00-6 (REACH-no) 01-2119529243-45-0146, 01-2119529243-45-XXXX	65 - 75	F; R11
2,2' -oxybisethanol, diethylene glycol	(CAS No.) 111-46-6 (EC No) 203-872-2 (EC Index) 603-140-00-6 (REACH-no) 01-2119457857-21-XXXX	22,85 - 32	Xn; R22 Xn; R48/22

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aluminium (1)	(CAS No.) 7429-90-5 (EC No) 231-072-3 (EC Index) 013-001-00-6 (REACH-no) 01-2119529243-45-0146, 01-2119529243-45-XXXX	65 - 75	Flam. Sol. 1, H228
2,2' -oxybisethanol, diethylene glycol	(CAS No.) 111-46-6 (EC No) 203-872-2 (EC Index) 603-140-00-6 (REACH-no) 01-2119457857-21-XXXX	22,85 - 32	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

Full text of R- and H-phrases: see section 16

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Comments : (1) The substance or mixture does not emit flammable gases in contact with water.
UN Test N.5: Test method for substances which in contact with water emit flammable gases
(Note T : This substance may be marketed in a form which does not have the physical hazards as indicated by the classification in the entry in Part 3. If the results of the relevant method or methods in accordance with Part 2 of Annex I of this Regulation show that the specific form of substance marketed does not exhibit this physical property or these physical hazards, the substance shall be classified in accordance with the result or results of this test or these tests. Relevant information, including reference to the relevant test method(s) shall be included in the safety data sheet.)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation : Provide fresh air.
Keep at rest.
When in doubt or if symptoms are observed, get medical advice.

Skin contact : Remove contaminated clothing and shoes.
Wash with plenty of water/.
When in doubt or if symptoms are observed, get medical advice.
Wash contaminated clothing before reuse.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Call a physician if irritation develops or persists.

In case of ingestion : Rinse mouth immediately and drink plenty of water.
Do NOT induce vomiting
Get medical advice/attention.

Additional advice : First aider: Pay attention to self-protection!
See also section 8
Treat symptomatically.
Show this safety data sheet to the doctor in attendance.
When in doubt or if symptoms are observed, get medical advice.
Never give anything by mouth to an unconscious person or a person with cramps.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation : Inhalation of vapours in high concentration may cause irritation of respiratory system.

Skin contact : May be irritating. The following symptoms may occur: erythema (redness).


Eye contact : Dust contact with the eyes can lead to mechanical irritation. The following symptoms may occur: erythema (redness), Tears.

Ingestion : Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Other adverse effects : May cause damage to organs through prolonged or repeated exposure. (Liver and kidney damage).

4.3. Indication of any immediate medical attention and special treatment needed

No data available

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Special powder against metal fire . Dry sand . ABC-powder . Co-ordinate fire-fighting measures to the fire surroundings.

Extinguishing media which must not be used for safety reasons: : Water
Foam

5.2. Special hazards arising from the substance or mixture

Fire hazard : Non-flammable.

Specific hazards : In dry state:
Dust may form explosive mixture in air.
Burning produces noxious and toxic fumes.
Hazardous decomposition products COx,
Do not allow run-off from fire-fighting to enter drains or water courses.
Dispose according to legislation.

5.3. Advice for firefighters

Advice for firefighters : Special protective equipment for firefighters.
In case of fire: Wear self-contained breathing apparatus.
Cool closed containers exposed to fire with water spray
Evacuate area.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Evacuate area.
Provide adequate ventilation.
Use personal protective equipment as required.
Personal protection equipment: see section 8
Avoid contact with skin, eyes and clothes.
Avoid generation of dust.
Do not breathe vapours/dust.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Take precautionary measures against static discharges.
Use only non-sparking tools.

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place.
Personal protection equipment: see section 8.

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 : Stop leak if safe to do so.
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Collect in closed and suitable containers for disposal.
Dispose according to legislation.
Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

6.4. Reference to other sections

Personal protection equipment: see section 8
Disposal: see section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Handling : Use only in well-ventilated areas.
Provide adequate ventilation.
Use personal protective equipment as required.
Personal protection equipment: see section 8 .
Avoid contact with skin, eyes and clothes.
Avoid generation of dust.
Do not breathe vapours/dust.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharges.
Take any precaution to avoid mixing with incompatible materials.
See also section 10
Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time).
Do not allow to enter into surface water or drains.
- Advices on general occupational hygiene : Keep good industrial hygiene.
When using do not eat, drink or smoke.
Wash hands before breaks and immediately after using the product.
Take off contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

- Storage : Keep container tightly closed in a cool, well-ventilated place.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Protect from moisture.
Do not store near or with any of the incompatible materials listed in section 10.
Maximum storage period (time) :
3 months.
- Packaging materials : Keep/Store only in original container.

7.3. Specific end use(s)


No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters


Exposure limit values :

Aluminium (7429-90-5)		
Austria	MAK (mg/m ³)	10 mg/m ³ (inhalable fraction)
Austria	MAK Short time value (mg/m ³)	20 mg/m ³ (inhalable fraction)
Belgium	Limit value (mg/m ³)	1 mg/m ³
Bulgaria	OEL TWA (mg/m ³)	10,0 mg/m ³ (metal dust) 1,5 mg/m ³ (respirable fraction)
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	10 mg/m ³ (total dust) 4 mg/m ³ (respirable dust)
France	VME (mg/m ³)	10 mg/m ³ (metal) 5 mg/m ³ (dust)
Greece	OEL TWA (mg/m ³)	10 mg/m ³ (inhalable fraction) 5 mg/m ³ (respirable fraction)
Latvia	OEL TWA (mg/m ³)	2 mg/m ³

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Aluminium (7429-90-5)		
Spain	VLA-ED (mg/m ³)	10 mg/m ³ (dust)
Switzerland	VME (mg/m ³)	3 mg/m ³ (respirable)
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (inhalable dust) 4 mg/m ³ (respirable dust)
United Kingdom	WEL STEL (mg/m ³)	30 mg/m ³ (calculated-inhalable dust) 12 mg/m ³ (calculated-respirable dust)
Czech Republic	Expoziční limity (PEL) (mg/m ³)	10,0 mg/m ³ (dust)
Denmark	Grænseværdie (langvarig) (mg/m ³)	5 mg/m ³ (dust, fume and powder, total) 2 mg/m ³ (dust and powder, respirable)
Hungary	AK-érték	6 mg/m ³ (respirable dust)
Ireland	OEL (8 hours ref) (mg/m ³)	1 mg/m ³ (respirable dust)
Ireland	OEL (15 min ref) (mg/m ³)	3 mg/m ³ (calculated-respirable dust)
Lithuania	IPRV (mg/m ³)	5 mg/m ³ (inhalable fraction) 2 mg/m ³ (respirable fraction) 1 mg/m ³
Norway	Gjennomsnittsverdier (AN) (mg/m ³)	5 mg/m ³ (pyrotechnical-powder)
Norway	Gjennomsnittsverdier (Korttidsverdi) (mg/m ³)	10 mg/m ³ (pyrotechnical-powder)
Poland	NDS (mg/m ³)	2,5 mg/m ³ (inhalable fraction) 1,2 mg/m ³ (respirable fraction)
Romania	OEL TWA (mg/m ³)	3 mg/m ³ (dust) 1 mg/m ³ (fume)
Romania	OEL STEL (mg/m ³)	10 mg/m ³ (powder) 3 mg/m ³ (fume)
Slovakia	NPHV (priemerná) (mg/m ³)	1,5 mg/m ³ (metal) 6 mg/m ³ (total aerosol)
Sweden	nivågränsvärde (NVG) (mg/m ³)	5 mg/m ³ (total dust) 2 mg/m ³ (respirable dust)

2,2' -oxybisethanol, diethylene glycol (111-46-6)		
Austria	MAK (mg/m ³)	44 mg/m ³
Austria	MAK (ppm)	10 ppm
Austria	MAK Short time value (mg/m ³)	176 mg/m ³
Austria	MAK Short time value (ppm)	40 ppm
Bulgaria	OEL TWA (mg/m ³)	10 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	101 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	23 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	44 mg/m ³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	TRGS 900 Occupational exposure limit value (ppm)	10 ppm (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Latvia	OEL TWA (mg/m ³)	10 mg/m ³
Switzerland	VLE (mg/m ³)	176 mg/m ³
Switzerland	VLE (ppm)	40 ppm
Switzerland	VME (mg/m ³)	44 mg/m ³
Switzerland	VME (ppm)	10 ppm
United Kingdom	WEL TWA (mg/m ³)	101 mg/m ³
United Kingdom	WEL TWA (ppm)	23 ppm
United Kingdom	WEL STEL (mg/m ³)	303 mg/m ³ (calculated)

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2,2' -oxybisethanol, diethylene glycol (111-46-6)		
United Kingdom	WEL STEL (ppm)	69 ppm (calculated)
Denmark	Grænseværdie (langvarig) (mg/m ³)	11 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	2,5 ppm
Ireland	OEL (8 hours ref) (mg/m ³)	100 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	23 ppm
Ireland	OEL (15 min ref) (mg/m ³)	300 mg/m ³ (calculated)
Ireland	OEL (15 min ref) (ppm)	69 ppm (calculated)
Lithuania	IPRV (mg/m ³)	45 mg/m ³
Lithuania	IPRV (ppm)	10 ppm
Lithuania	TPRV (mg/m ³)	90 mg/m ³
Lithuania	TPRV (ppm)	20 ppm
Poland	NDS (mg/m ³)	10 mg/m ³ (inhalable aerosol fraction)
Romania	OEL TWA (mg/m ³)	500 mg/m ³
Romania	OEL TWA (ppm)	115 ppm
Romania	OEL STEL (mg/m ³)	800 mg/m ³
Romania	OEL STEL (ppm)	184 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	44 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	10 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	90 mg/m ³
Sweden	nivågränsvärde (NVG) (mg/m ³)	45 mg/m ³ (the limit value applies to the combined concentration of vapour and aerosol)
Sweden	nivågränsvärde (NVG) (ppm)	10 ppm (the limit value applies to the combined concentration of vapour and aerosol)
Sweden	kortidsvärde (KTV) (mg/m ³)	90 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	20 ppm

Recommended monitoring procedures : Concentration measurement in air
Personal air monitoring

8.2. Exposure controls

Personal protection equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.


Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Half-face mask (DIN EN 140)
Full face mask (EN 136)
Filter type: A/P (EN 141)

Hand protection : Wear chemically resistant gloves (tested to EN374) „NBR (Nitrile rubber), The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.

Eye protection : Safety glasses (EN 166) Safety glasses with side-shields (EN 166)

Body protection : Wear suitable protective clothing.

Thermal hazard protection : Not required under normal use.


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Engineering control measures	: Provide adequate ventilation. Use only in area provided with appropriate exhaust ventilation. A washing facility/water for eye and skin cleaning purposes should be present. Ensure that the equipment is adequately grounded. Take precautionary measures against static discharges. Organisational measures to prevent/limit releases, dispersion and exposure See also section 7
Environmental exposure controls	: Do not allow to enter into surface water or drains. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	: Paste
Colour	: silver
Odour	: characteristic
Odour threshold:	: No data available
pH	: No data available
Melting point/freezing point	: Al: 660 °C -7 °C 2,2' -oxybisethanol, diethylene glycol
Initial boiling point and boiling range	: Al: 2450 °C 245 °C 2,2' -oxybisethanol, diethylene glycol
Flash point	: Al: study scientifically unjustified 123 °C 2,2' -oxybisethanol, diethylene glycol
Evaporation rate	: Al: < 0,001 (n-butyl acetate = 1) 2,2' -oxybisethanol, diethylene glycol < 0,001 (n-butyl acetate = 1)
Flammability (solid, gas)	: Non-flammable.
Upper/lower flammability or explosive limits	: 0,7 - 37 vol % 2,2' -oxybisethanol, diethylene glycol
Vapour pressure	: Al: 0,0013 hPa (974 °C) 0,0013 kPa 2,2' -oxybisethanol, diethylene glycol
Vapour density	: 3,7 2,2' -oxybisethanol, diethylene glycol
Density	: Al: 2,702 g/cm ³ 1,12 kg/l 2,2' -oxybisethanol, diethylene glycol
Relative density	: Al: 2,7 (20 °C) 1 2,2' -oxybisethanol, diethylene glycol
Water solubility	: 0,00002 g/l 100 % 2,2' -oxybisethanol, diethylene glycol
Solubility in different media	: Al: study scientifically unjustified
Partition coefficient n-octanol/water	: Al: study scientifically unjustified -1,98 2,2' -oxybisethanol, diethylene glycol
Auto-ignition temperature	: > 229 °C 2,2' -oxybisethanol, diethylene glycol
Decomposition temperature	: No data available
Viscosity	: study scientifically unjustified
Kinematic viscosity	: 33 m ² /s 2,2' -oxybisethanol, diethylene glycol
Dynamic viscosity	: 42 mPa.s 2,2' -oxybisethanol, diethylene glycol
Explosive properties	: Not applicable The study does not need to be conducted because there are no

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Oxidising properties : chemical groups associated with explosive properties present in the molecule.
: Not applicable
The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

9.2. Other information

Surface tension : 0,0485 mN/m 2,2' -oxybisethanol, diethylene glycol

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity : None under normal processing.
Exothermic reaction with: Oxidising substances
2,2' -oxybisethanol, diethylene glycol :
Reference to other sections: 10.5

10.2. Chemical stability

Stability : The product is stable under storage at normal ambient temperatures.,2,2' -oxybisethanol, diethylene glycol :,May form explosive peroxides.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions : In dry state:
Risk of dust explosion.
Reference to other sections: 10.4 & 10.5

10.4. Conditions to avoid

Conditions to avoid : Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.
Extremely high temperatures
Avoid generation of dust.
See also section 7
Handling and storage

10.5. Incompatible materials

Incompatible materials : Oxidising substances,, Strong acids,, Strong bases,, Halogens,, Halogenated compounds, See also section 7, Handling and storage

10.6. Hazardous decomposition products

Hazardous decomposition products : Hazardous decomposition products formed under fire conditions.
Reference to other sections: 5.2


SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. (Based on available data, the classification criteria are not met.)

Aluminium (7429-90-5)	
LD50/oral/rat	> 2000 mg/kg
LC50/inhalation/4h/rat	> 888 mg/m ³

2,2' -oxybisethanol, diethylene glycol (111-46-6)	
LD50/oral/rat	300 - 2000 mg/kg
LD50/dermal/rabbit	> 5000 mg/kg

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2,2' -oxybisethanol, diethylene glycol (111-46-6)	
LC50/inhalation/4h/rat	> 4,6 mg/l/4h
ATE CLP (oral)	500 mg/kg bodyweight

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Serious eye damage/eye irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met.)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met.)

2,2' -oxybisethanol, diethylene glycol (111-46-6)	
NOAEL (oral, rat)	100 mg/kg bodyweight
NOAEL (dermal, rat/rabbit)	3549 mg/kg bodyweight Mouse

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.
(Based on available data, the classification criteria are not met.)

Aluminium (7429-90-5)	
NOAEL (oral, rat, 90 days)	<
Additional information	NOAEL, subchronic, oral, Rat: 30 mg/kg bw/day LOAEC, subchronic, Inhalation, Rat: 50 mg/m ³

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

Other information


Symptoms related to the physical, chemical and toxicological characteristics, Reference to other sections: 4.2

SECTION 12: Ecological information

12.1. Toxicity

Toxicity : According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

Aluminium (7429-90-5)	
LC50 fish 1	1,16 mg/l (96 h)
EC50 Daphnia 1	0,72 mg/l (48 h)
EC50 72h algae [mg/l] (1)	0,0002 mg/l
NOEC chronic fish	751,7 µg/L (7 d)
NOEC chronic crustacea	76 µg/L

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2,2' -oxybisethanol, diethylene glycol (111-46-6)	
NOEC chronic crustacea	8590 mg/l EPA 600/4-90/027
NOEC chronic algae	2700 mg/l OECD 201
Additional information	EC50, aquatic invertebrates, acute, daphnia: > 10000 mg/l (24 hours, DIN 38414-11) EC20, aqua FW: > 1995 mg/l (30, ISO 8192)

12.2. Persistence and degradability

Persistence and degradability : Not applicable
Product/Substance is inorganic.

12.3. Bioaccumulative potential

Bioaccumulation : Not applicable
Product/Substance is inorganic.
Partition coefficient n-octanol/water : AI: study scientifically unjustified
-1,98 2,2' -oxybisethanol, diethylene glycol

12.4. Mobility in soil

Mobility : The study does not need to be conducted because the substance is inorganic.
Surface tension : 0,0485 mN/m 2,2' -oxybisethanol, diethylene glycol

12.5. Results of PBT and vPvB assessment

PBT/vPvB data : Not applicable

12.6. Other adverse effects

Other information :

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product waste: : Handle with care.
Safe handling: see section 7
Handling and storage
Collect and dispose of waste product at an authorised disposal facility.
Refer to manufacturer/supplier for information on recovery/recycling.
If recycling is not practicable, dispose of in compliance with local regulations.
Dispose according to legislation.

Contaminated packaging : If recycling is not practicable, dispose of in compliance with local regulations.
Empty containers should be taken to local recyclers for disposal.
Do not burn, or use a cutting torch on, the empty drum.
Do not puncture or incinerate.

Further ecological information : Do not allow to enter into surface water or drains.

List of proposed waste codes/waste designations in accordance with EWC : Classified as hazardous waste according to European Union regulations.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.


SECTION 14: Transport information

14.1. UN number

UN number : NA

14.2. UN proper shipping name

Proper Shipping Name : NA

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14.3. Transport hazard class(es)

14.3.1. Overland transport

ADR/RID : Not classified for this transport way.
Class(es) : Not applicable

14.3.2. Inland waterway transport (ADN)

ADN : Not classified for this transport way.

14.3.3. Transport by sea

IMDG : Not classified for this transport way.
Class or Division : Not applicable

14.3.4. Air transport

ICAO/IATA : Not classified for this transport way.
Class or Division : Not applicable

14.4. Packing group

Packing group : NA

14.5. Environmental hazards

Other information : Not applicable.

14.6 Special precautions for user

Special precautions for user : Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Code: IBC : Not applicable.

SECTION 15: Regulatory information

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


15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006 :

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008 : 2,2' -oxybisethanol, diethylene glycol

3.a. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008:
Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F : Aluminium

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. : Aluminium

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This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC.

Authorisations : none
: Not applicable

15.1.2. National regulations

DE : WGK : 2
NL : ABM : 5 - Very toxic to aquatic organisms (B)

15.2. Chemical safety assessment

Chemical Safety Assessment : For the following substances of this preparation a chemical safety assessment has been carried out:
Aluminium
2,2' -oxybisethanol, diethylene glycol

SECTION 16: Other information


Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Oral) : Acute toxicity Category 4
Flam. Sol. 1 : Flammable solids, Hazard Category 1
STOT RE 2 : Specific target organ toxicity — Repeated exposure, Category 2
H228 : Flammable solid.
H302 : Harmful if swallowed.
H373 : May cause damage to organs through prolonged or repeated exposure.
R11 : Highly flammable.
R22 : Harmful if swallowed.
R48/22 : Harmful: danger of serious damage to health by prolonged exposure if swallowed.
F : Highly flammable
Xn : Harmful

Key literature references and sources for data : European Metal Particulate Association (EMPA)
Supplier MSDS
CSR

Other information : CLP, Article 9.; Calculation method.

Abbreviations and acronyms : ABM = Algemene beoordelingsmethodiek
ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods Code
LEL = Lower Explosive Limit/Lower Explosion Limit
UEL = Upper Explosion Limit/Upper Explosive Limit
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
EC50 = Median Effective Concentration
EWC = European Waste Catalogue
LC50 = Median lethal concentration
LD50 = Median lethal dose
NOELR = No observed effect loading rate
NA = Not applicable
Occupational Exposure Limits - Short Term Exposure Limits (STELs)
PBT = persistent, bioaccumulating and toxic (PBT).
STEL = Short term exposure limit
TWA = time weighted average
vPvB = very persistent and very bioaccumulating

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WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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