Pelikan Hardcopy Production AG

8620 Wetzikon

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

1.1 Product identifier

22-461

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

1.2.1 Relevant uses

Ink

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company Pelikan Hardcopy Production AG

Haldenstrasse 28

8620 Wetzikon / SWITZERLAND Phone +41 (0) 44 9861-299

Address enquiries to Technical information

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Company +41 (0) 44 9861-299 Mo-Fr 8:00-17:00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

No classification.

2.2 Label elements

Hazard pictograms

Hazard statements none

Special labelling EUH210 Safety data sheet available on request.

2.3 Other hazards

Human health dangers Frequent persistent contact with the skin can cause skin irritation.

Environmental hazardsDoes not contain any PBT or vPvB substances.

Other hazards Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

Range [%]	Substance
1 - <10	2,2' -oxybisethanol
	CAS: 111-46-6, EINECS/ELINCS: 203-872-2, EU-INDEX: 603-140-00-6
	GHS/CLP: Acute Tox. 4: H302 - STOT RE 2: H373

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%. For full text of H-statements: see SECTION 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information Take off contaminated clothing and wash before reuse.

Inhalation Ensure supply of fresh air.

In the event of symptoms seek medical treatment.

Skin contact When in contact with the skin, clean with soap and water.

Consult a doctor if skin irritation persists.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

Ingestion Seek medical advice immediately.

Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Product itself is non-combustible. Fire extinguishing method of surrounding areas must be

considered.

Extinguishing media that must not

be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.

Not combusted hydrocarbons. Nitrogen oxides (NOx).

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within

the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

High risk of slipping due to leakage/spillage of product.

Ensure adequate ventilation.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.

Take up residues with absorbent material (e.g. sand, sawdust, general-purpose binder).

Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

The normal safety precautions for handling chemicals must be observed.

The product is not combustible.

Wash hands before breaks and after work.

Use barrier skin cream.

Take off contaminated clothing and wash before reuse. Do not eat, drink, smoke or take drugs at work.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container. Prevent penetration into the ground.

Do not store together with oxidizing agents.

Do not store together with food and animal food/diet.

Keep container in a well-ventilated place.

Keep container tightly closed. Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance

Glycerol

CAS: 56-81-5, EINECS/ELINCS: 200-289-5

Long-term exposure: 10 mg/m³, (mist)

2,2' -oxybisethanol

CAS: 111-46-6, EINECS/ELINCS: 203-872-2, EU-INDEX: 603-140-00-6

Long-term exposure: 23 ppm, 101 mg/m³

8.2 Exposure controls

Additional advice on system design
Ensure adequate ventilation on workstation.

Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of

hazardous substances.

Eye protection Safety glasses. (EN 166:2001)

Hand protection 0,4mm butyl rubber, > 120 min (EN 374)

The details concerned are recommendations. Please contact the glove supplier for further

information.

Skin protection Protective clothing.

Other Avoid contact with eyes and skin.

Respiratory protection Not required under normal conditions.

Thermal hazards none

Delimitation and monitoring of the

environmental exposition

Comply with applicable environmental regulations limiting discharge to air, water and soil.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form liquid
Color yellow
Odor characteristic
Odour threshold not determined

pH-value 8,95

pH-value [1%] not applicable
Boiling point [°C] not determined
Flash point [°C] not applicable
Flammability (solid, gas) [°C] not applicable
Lower explosion limit not applicable
Upper explosion limit not applicable

Oxidising properties no

Vapour pressure/gas pressure [kPa] not determined

Density [g/ml] 1,05 (20 °C / 68,0 °F)

Bulk density [kg/m³] not applicable

Solubility in water miscible

Partition coefficient [n-octanol/water] not determined

Viscosity 2,41 mm²/s (20°C)

Relative vapour density determined not applicable

in air

Evaporation speed not applicable

Melting point [°C] not determined

Autoignition temperature [°C] not applicable

Decomposition temperature [°C] not determined

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

The product is stable under standard conditions.

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

10.4 Conditions to avoid

See SECTION 7.2.

10.5 Incompatible materials

Oxidizing agent

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product

ATE-mix, inhalative, > 20 mg/l 4h.

ATE-mix, dermal, > 2000 mg/kg.

ATE-mix, oral, > 2000 mg/kg.

Substance

2,2' -oxybisethanol, CAS: 111-46-6

LD50, dermal, Rabbit: 13300 mg/kg.

LD50, oral, Rat (male): 19600 mg/kg.

LC50, inhalative, Rat: > 4,6 mg/l 4h.

Serious eye damage/irritation Does not contain a relevant substance that meets the classification criteria.

Based on the available information, the classification criteria are not fulfilled.

Toxicological data of complete product are not available.

Skin corrosion/irritation Does not contain a relevant substance that meets the classification criteria.

Based on the available information, the classification criteria are not fulfilled.

Toxicological data of complete product are not available.

Respiratory or skin sensitisation

Does not contain a relevant substance that meets the classification criteria.

Based on the available information, the classification criteria are not fulfilled.

Toxicological data of complete product are not available.

Specific target organ toxicity —

single exposure

Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled.

Toxicological data of complete product are not available.

Specific target organ toxicity —

repeated exposure

Based on the available information, the classification criteria are not fulfilled.

Toxicological data of complete product are not available.

Mutagenicity

Does not contain a relevant substance that meets the classification criteria.

Based on the available information, the classification criteria are not fulfilled.

Toxicological data of complete product are not available.

Reproduction toxicityDoes not contain a relevant substance that meets the classification criteria.

Based on the available information, the classification criteria are not fulfilled.

Toxicological data of complete product are not available.

 Carcinogenicity
 Does not contain a relevant substance that meets the classification criteria.

Based on the available information, the classification criteria are not fulfilled.

Toxicological data of complete product are not available.

Aspiration hazard Does not contain a relevant substance that meets the classification criteria.

General remarks

none

SECTION 12: Ecological information

12.1 Toxicity

Substance

2,2' -oxybisethanol, CAS: 111-46-6

LC50, (96h), Pimephales promelas: 75200 mg/l.

EC50, (96h), Pseudokirchneriella subcapitata: > 100 mg/l.

EC50, (48h), Daphnia magna: 48900 mg/l.

12.2 Persistence and degradability

Behaviour in environment

Behaviour in sewage plant

Biological degradability

not determined

compartments

not determined

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12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Coordinate disposal with the authorities if necessary.

Waste no. (recommended)

080313

Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.

Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150102

SECTION 14: Transport information

14.1 UN number

Transport by land according to

ADR/RID

not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with

IMDG

not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID

NO DANGEROUS GOODS

Inland navigation (ADN)

NO DANGEROUS GOODS

Marine transport in accordance with NOT CLASSIFIED AS "DANGEROUS GOODS"

IMDG

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

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14.3 Transport hazard class(es)

Transport by land according to

ADR/RID

not applicable

Inland navigation (ADN)

not applicable

Marine transport in accordance with

MDG

not applicable

Air transport in accordance with IATA not applicable

14.4 Packing group

Transport by land according to

not applicable

ADR/RID

Inland navigation (ADN) not applicable

Marine transport in accordance with

IMDG

not applicable

Air transport in accordance with IATA not applicable

14.5 Environmental hazards

Transport by land according to

ADR/RID

no

no

Inland navigation (ADN)

Marine transport in accordance with IMDG

no no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

not applicable

SECTION 15: Regulatory information

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

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008;

75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830

TRANSPORT-REGULATIONS DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2016).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

CHIP 3/ CHIP 4

- Observe employment restrictions

for people

none

- VOC (2010/75/CE) <1 %

15.2 Chemical safety assessment

not applicable

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SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

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

(kidneys)

H302 Harmful if swallowed.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par

Route

RID = Règlement concernant le transport international ferroviaire de marchandises

dangereuses

ADN = Accord européen relatif au transport international des marchandises dangereuses par

voie de navigation intérieure

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging

DMEL = Derived Minimum Effect Level

DNEL = Derived No Effect Level

EC50 = Median effective concentration

ECB = European Chemicals Bureau

EEC = European Economic Community

EINECS = European Inventory of Existing Commercial Chemical Substances

ELINCS = European List of Notified Chemical Substances

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC-Code = International Code for the Construction and Equipment of Ships carrying

Dangerous Chemicals in Bulk

IC50 = Inhibition concentration, 50%

IMDG = International Maritime Code for Dangerous Goods

IUCLID = International Uniform ChemicaL Information Database

LC50 = Lethal concentration, 50%

LD50 = Median lethal dose

MARPOL = International Convention for the Prevention of Marine Pollution from Ships

PBT = Persistent. Bioaccumulative and Toxic substance

PNEC = Predicted No-Effect Concentration

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

TLV®/TWA = Threshold limit value - time-weighted average

TLV®STEL = Threshold limit value - short-time exposure limit

VOC = Volatile Organic Compounds

vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

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Modified position

SECTION 15 been added: EUH210 Safety data sheet available on request.

SECTION 2 been added: none

SECTION 2 deleted: P501 Dispose of contents/container to in accordance with

local/regional/national/international regulation.

SECTION 2 deleted: P314 Get medical advice / attention if you feel unwell.

SECTION 2 deleted: P102 Keep out of reach of children.

SECTION 2 deleted: P101 If medical advice is needed, have product container or label at

hand.

SECTION 2 deleted: STOT RE 2

SECTION 2 deleted: H373 May cause damage to organs through prolonged or repeated

exposure if swallowed. (kidneys)
SECTION 2 deleted: WARNING
SECTION 2 deleted: health hazard
SECTION 4 deleted: Allergic reactions

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SECTION 8 been added: Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

SECTION 12 been added: Spillages may penetrate the soil causing ground water

contamination.

SECTION 13 been added:



