

Pelikan Hardcopy Production AG
8620 Wetzikon

Date printed 08.10.2014, Revision 08.10.2014

Version 01

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SECTION 1: Identification of the substance / preparation and of the company

1.1 Product identifier

29-878

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 phone

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]

see SECTION 16

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

Xi, Irritant - R 36: Irritating to eyes.

2.2 Label elements

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

Hazard symbols



Irritant

R-phrases

R 36: Irritating to eyes.

S-phrases

S 2: Keep out of the reach of children.

S 25: Avoid contact with eyes.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 46: If swallowed, seek medical advice immediately and show this container or label.

2.3 Other hazards

Human health dangers

Frequent persistent contact with the skin can cause skin irritation.

Environmental hazards

Does not contain any PBT or vPvB substances.

Other hazards

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

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SECTION 3: Composition / Information on ingredients**Product-type:**

The product is a mixture.

Range [%]	Substance
5 - <10	2-pyrrolidone
	CAS: 616-45-5, EINECS/ELINCS: 210-483-1
	GHS/CLP: Skin Irrit. 2: H315 - Eye Irrit. 2: H319
	EEC: Xi, R 36/38
1 - 5	Butan-1-ol
	CAS: 71-36-3, EINECS/ELINCS: 200-751-6, EU-INDEX: 603-004-00-6
	GHS/CLP: Flam. Liq. 3: H226 - Acute Tox. 4: H302 - STOT SE 3: H335 - Skin Irrit. 2: H315 - Eye Dam. 1: H318
1 - 5	Ethylene glycol
	CAS: 107-21-1, EINECS/ELINCS: 203-473-3, EU-INDEX: 603-027-00-1
	GHS/CLP: Acute Tox. 4: H302
1 - 5	2-(2-(2-Butoxyethoxy)ethoxy)ethanol
	CAS: 143-22-6, EINECS/ELINCS: 205-592-6, EU-INDEX: 603-183-00-0
	GHS/CLP: Eye Dam. 1: H318
	EEC: Xi, R 41

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 and R-phrases: see SECTION 16.

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 for 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.
Do not induce vomiting.
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**

Carbon dioxide.
Alcohol-resistant foam.
Dry powder.
Water spray jet.

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.

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5.3 Advice for firefighters

Use self-contained breathing apparatus.

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

Use personal protective clothing.

6.2 Environmental precautions

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

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

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand).

Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

No special measures necessary if used correctly.

Wash hands before breaks and after work.

Use barrier skin cream.

Do not eat, drink, smoke or take drugs at work.

Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Prevent penetration into the ground.

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

Do not store together with oxidizing agents.

Keep container tightly closed.

Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

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SECTION 8: Exposure controls / personal protection**8.1 Control parameters****Ingredients with occupational exposure limits to be monitored (GB)**

Range [%]	Substance
1 - 5	Butan-1-ol
	CAS: 71-36-3, EINECS/ELINCS: 200-751-6, EU-INDEX: 603-004-00-6
	Long-term exposure: 50 ppm, Sk
	Short-term exposure (15-minute): 50 ppm, 154 mg/m ³
1 - 5	Ethylene glycol
	CAS: 107-21-1, EINECS/ELINCS: 203-473-3, EU-INDEX: 603-027-00-1
	Long-term exposure: 20 ppm, 52 mg/m ³ , Vapour, particulate: 10 mg/m ³
	Short-term exposure (15-minute): 40 ppm, 104 mg/m ³

Ingredients with occupational exposure limits to be monitored (EU)

Range [%]	Substance / EC LIMIT VALUES
1 - 5	Ethylene glycol
	CAS: 107-21-1, EINECS/ELINCS: 203-473-3, EU-INDEX: 603-027-00-1
	Eight hours: 20 ppm, 52 mg/m ³ , H
	Short-term (15-minute): 40 ppm, 104 mg/m ³

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
Eye protection	Safety glasses.
Hand protection	butyl rubber, > 120 min (EN 374) The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	light 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	See SECTION 6+7.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	liquid
Color	various
Odor	characteristic
Odour threshold	not applicable
pH-value	8,1
pH-value [1%]	not determined
Boiling point [°C]	not determined
Flash point [°C]	> 200
Flammability [°C]	not determined
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidizing properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	1,04 (25°C / 77,0°F)
Bulk density [kg/m ³]	not applicable
Solubility in water	miscible
Partition coefficient [n-octanol/water]	not determined
Viscosity	2,1 cps (25°C)
Relative vapour density determined in air	not determined
Evaporation speed	not determined
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 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**

Range [%]	Substance
1 - 5	2-(2-(2-Butoxyethoxy)ethoxy)ethanol, CAS: 143-22-6
	LD50, dermal, Rabbit: > 2000 mg/kg.
	LD50, oral, Rat: > 2000 mg/kg.
1 - 5	Ethylene glycol, CAS: 107-21-1
	LD50, oral, Rat: > 2000 mg/kg (IUCLID).
1 - 5	Butan-1-ol, CAS: 71-36-3
	LD50, dermal, Rabbit: 3400 mg/kg bw (IUCLID).
	LD50, oral, Rat: 790 mg/kg bw (IUCLID).
	LC50, inhalative, Rabbit: 17,76 mg/L (4h) (IUCLID).

Serious eye damage/irritation not determined**Skin corrosion/irritation** not determined**Respiratory or skin sensitisation** not determined**Specific target organ toxicity — single exposure** not determined**Specific target organ toxicity — repeated exposure** not determined**Mutagenicity** not determined**Reproduction toxicity** not determined**Carcinogenicity** not determined**General remarks**

Toxicological data of complete product are not available.

The product was classified on the basis of the calculation procedure of the preparation directive.

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 12: Ecological information**12.1 Toxicity**

Range [%]	Substance
1 - 5	2-(2-(2-Butoxyethoxy)ethoxy)ethanol, CAS: 143-22-6
	EC50, (24h), Daphnia magna: > 100 mg/l.
	EC50, (72h), Scenedesmus subspicatus: > 100 mg/l.
1 - 5	Ethylene glycol, CAS: 107-21-1
	LC50, (96h), Oncorhynchus mykiss: > 18500 mg/l.
	EC50, (24h), Daphnia magna: 74000 mg/l.
1 - 5	Butan-1-ol, CAS: 71-36-3
	LC50, (96h), Pimephales promelas: < 1630 mg/L (IUCLID).
	EC50, (96h), Scenedesmus subspicatus: > 500 mg/L (IUCLID).
	EC50, (48h), Daphnia magna: 1983 mg/L (IUCLID).

12.2 Persistence and degradability**Behaviour in environment compartments** not determined**Behaviour in sewage plant** not determined**Biological degradability** not determined**12.3 Bioaccumulative potential**

not determined

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12.4 Mobility in soil

not determined

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

No classification on the basis of the calculation procedure of the preparation directive.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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.

Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended)

080312*

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

150110*

SECTION 14: Transport information**14.1 UN number**

See SECTION 14.2 in accordance with UN shipping name

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 IMDG

NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA

NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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14.7 Transport in bulk according to Annex II of MARPOL73/78 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	1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (1999/13/CE)	not determined

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Classification according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



Signal word

WARNING

Classification procedure

Eye Irrit. 2: H319 Causes serious eye irritation.
Classification according to conversion table Annex VII 1272/2008/EC

16.2 R-phrases (SECTION 3)

R 36/38: Irritating to eyes and skin.
R 41: Risk of serious damage to eyes.
R 22: Harmful if swallowed.
R 10: Flammable.
R 37/38: Irritating to respiratory system and skin.
R 67: Vapours may cause drowsiness and dizziness.

16.3 Hazard statements (SECTION 3)

H336 May cause drowsiness or dizziness.
H335 May cause respiratory irritation.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H315 Causes skin irritation.

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16.4 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

16.5 Other information**Modified position**

none



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