Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

MP-IPC 0.18 mm disposable ink pen **Order No.:86621490**
MP-IPC 0.25 mm disposable ink pen **Order No.:86621492**
MP-IPC 0.35 mm disposable ink pen **Order No.:86621494**

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture:
Ink
Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet
Murrplastik Systemtechnik GmbH
Dieselstraße 10
71570 Oppenweiler
Tel.: +49 7191 482-0
Fax: +49 7191 482-92280
E-Mail: info@murr-systems.com
Homepage: www.murr-systems.com

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number
Emergency information services / official advisory body:
GB
+49 551 19240 (D-37075 Göttingen, 24 hour), +49 551 38 31 80
Telephone number of the company in case of emergencies:

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Acute Tox.	4	H302-Harmful if swallowed.
Skin Irrit.	2	H315-Causes skin irritation.
Eye Dam.	1	H318-Causes serious eye damage.
STOT SE	3	H336-May cause drowsiness or dizziness.

2.2 Label elements
Labeling according to Regulation (EC) 1272/2008 (CLP)

Danger

H302-Harmful if swallowed. H315-Causes skin irritation. H318-Causes serious eye damage. H336-May cause drowsiness or dizziness.

P261-Avoid breathing vapours or spray. P280-Wear protective gloves / eye protection / face protection.
P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310-Immediately call a POISON CENTER / doctor.
P403+P233-Store in a well-ventilated place. Keep container tightly closed.

1-methoxy-2-propanol
4-Hydroxybutyric acid lactone
2-methylbutyric acid

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a.

3.2 Mixtures

4-Hydroxybutyric acid lactone	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	202-509-5
CAS	96-48-0
content %	<40
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Eye Dam. 1, H318 STOT SE 3, H336

1-methoxy-2-propanol	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	---
Index	603-064-00-3
EINECS, ELINCS, NLP	203-539-1
CAS	107-98-2
content %	<30
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 STOT SE 3, H336

4-hydroxy-4-methylpentan-2-one	
Registration number (REACH)	---
Index	603-016-00-1
EINECS, ELINCS, NLP	204-626-7

CAS	123-42-2
content %	<10
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319

2-methylbutyric acid	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	204-145-2
CAS	116-53-0
content %	<5
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1C, H314 Eye Dam. 1, H318

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.
For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!
For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures
First-aiders should ensure they are protected!
Never pour anything into the mouth of an unconscious person!

Inhalation
Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.

Skin contact
Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact
Remove contact lenses.
Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.
Protect uninjured eye.
Follow-up examination by an ophthalmologist.

Ingestion
Rinse the mouth thoroughly with water.
Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed
If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.
eyes, reddened
watering eyes
Conjunctivitis
reddening of the skin
Dermatitis (skin inflammation)
Fatigue
drowsiness

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

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Water jet spray/foam/CO2/dry extinguisher
Unsuitable extinguishing media
None known

5.2 Special hazards arising from the substance or mixture
In case of fire the following can develop:
Oxides of carbon
Oxides of nitrogen
Toxic gases

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure sufficient supply of air.
Avoid contact with eyes or skin.
If applicable, caution - risk of slipping.

6.2 Environmental precautions
If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent surface and ground-water infiltration, as well as ground penetration.
Prevent from entering drainage system.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.
Fill the absorbed material into lockable containers.

6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling
7.1.1 General recommendations
Ensure good ventilation.
Avoid contact with eyes or skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities
Keep out of access to unauthorised individuals.
Store product closed and only in original packing.
Not to be stored in gangways or stair wells.
Do not store with oxidizing agents.
Protect from direct sunlight and warming.
Protect from frost.
Store at room temperature.
Store in a dry place.

7.3 Specific end use(s)
No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

GB **Chemical Name**	1-methoxy-2-propanol	Content %:<30
WEL-TWA: 100 ppm (375 mg/m3) (WEL, EU)	WEL-STEL: 150 ppm (560 mg/m3) (WEL), 150 ppm (568 mg/m3) (EU)	---
Monitoring procedures:	INSHT MTA/MA-017/A89 (Determination of glycol ethers (1-methoxy-2-propanol, 2-ethoxyethanol) in air - Charcoal tube method / Gas chromatography) - 1989 - - EU project BC/CEN/ENTR/000/2002-16 card 12-1 (2004) - NIOSH 2554 (GLYCOL ETHERS) - 2003 - OSHA 99 (Propylene Glycol Monomethyl Ethers/Acetates) - 1993	
BMGV: ---	Other information: Sk (WEL)	

GB **Chemical Name**	4-hydroxy-4-methylpentan-2-one	Content %:<10
WEL-TWA: 50 ppm (241 mg/m3)	WEL-STEL: 75 ppm (362 mg/m3)	---
Monitoring procedures:	- Compur - KITA-190 U(C) (548 873) - NIOSH 1402 (ALCOHOLS III) - 1994 - NIOSH 1405 (ALCOHOLS COMBINED) - 2003	
BMGV: ---	Other information: ---	

4-Hydroxybutyric acid lactone

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,056	mg/l	
	Environment - marine		PNEC	0,0056	mg/l	
	Environment - sporadic (intermittent) release		PNEC	0,56	mg/l	
	Environment - sediment, freshwater		PNEC	0,24	mg/kg dw	
	Environment - sediment, marine		PNEC	0,02	mg/kg dw	
	Environment - soil		PNEC	0,014683	mg/kg dw	
	Environment - sewage treatment plant		PNEC	452	mg/l	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	28	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	340	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	958	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	130	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	19	mg/kg bw/day	

1-methoxy-2-propanol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	10	mg/l	
	Environment - marine		PNEC	1	mg/l	
	Environment - periodic release		PNEC	100	mg/l	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - sediment, freshwater		PNEC	52,3	mg/kg dw	
	Environment - sediment, marine		PNEC	5,2	mg/kg dw	
	Environment - soil		PNEC	4,59	mg/kg dw	

Consumer	Human - oral	Long term, systemic effects	DNEL	33	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	78	mg/kg bw/day	
Consumer	Human - inhalation	Short term, local effects	DNEL	553,5	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	50,6	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	369	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	18,1	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	43,9	mg/m3	
Workers / employees	Human - oral	Long term, systemic effects	DNEL	3,3	mg/kg	
Workers / employees	Human - oral	Long term, systemic effects	DNEL	183	mg/kg bw/day	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).
(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

8.2 Exposure controls
8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.
Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.
These are specified by e.g. EN 14042.
EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
Chemical resistant protective gloves (EN 374).
If applicable
Protective gloves made of butyl (EN 374).
Protective Neoprene® / polychloroprene gloves (EN 374).
Protective nitrile gloves (EN 374).
Minimum layer thickness in mm:
0,5
Permeation time (penetration time) in minutes:

480
The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.
Protective hand cream recommended.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:
Normally not necessary.
If OES or MEL is exceeded.
Gas mask filter A (EN 14387), code colour brown
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Black
Odour:	Slightly
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	100 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	n.a.
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	1,12 (relative density)
Bulk density:	Does not apply to liquids.
Solubility(ies):	Not determined
Water solubility:	Mixable
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	5-6 cP (25°C)
Explosive properties:	Not determined
Oxidising properties:	Not determined

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
No dangerous reactions are known.

10.4 Conditions to avoid
Heating, open flame, ignition sources

10.5 Incompatible materials
Avoid contact with strong alkalis.
Avoid contact with strong oxidizing agents.
Avoid contact with strong acids.

10.6 Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Possibly more information on health effects, see Section 2.1 (classification).

MP-IPC disposable ink pen						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	ATE	1111	mg/kg			calculated value
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

4-Hydroxybutyric acid lactone						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Skin corrosion/irritation:						Not irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Not sensitizising
Reproductive toxicity:						Negative, Analogous conclusion

1-methoxy-2-propanol						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat	Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)	

Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	Regulation (EC) 440/2008 B.3 (ACUTE TOXICITY (DERMAL)	
Acute toxicity, by inhalation:	LC0	7	mg/l/6h		OECD 403 (Acute Inhalation Toxicity)	Vapours
Skin corrosion/irritation:				Rabbit	Regulation (EC) 440/2008 B.4 (DERMAL IRRITATION/CORROSION)	Not irritant
Serious eye damage/irritation:				Rabbit	Regulation (EC) 440/2008 B.5 (ACUTE EYE IRRITATION/CORROSION)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	Regulation (EC) 440/2008 B.6 (SKIN SENSITISATION)	Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Specific target organ toxicity - single exposure (STOT-SE):						May cause drowsiness or dizziness., STOT SE 3, H336
Symptoms:						drowsiness, unconsciousness, headaches, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.

4-hydroxy-4-methylpentan-2-one

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	13500	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	500-1900	mg/m3	Mouse		
Skin corrosion/irritation:						Slightly irritant
Serious eye damage/irritation:						Intensively irritant
Germ cell mutagenicity:					(Ames-Test)	Negative
Symptoms:						breathing difficulties, coughing, cramps, mucous membrane irritation, trembling

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

MP-IPC disposable ink pen

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.

12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.

4-Hydroxybutyric acid lactone

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	56	mg/l	Lepomis macrochirus	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>500	mg/l	Daphnia magna		
12.2. Persistence and degradability:	DOC	13d	98	%			
12.2. Persistence and degradability:	BOD	14d	77	%	activated sludge	OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	Readily biodegradable
12.4. Mobility in soil:	Koc		6,477				calculated value
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Other organisms:	EC50		4518	mg/l	Tetrahymen pyriformis		

1-methoxy-2-propanol

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	6812	mg/l	Leuciscus idus	DIN 38412 T.15	
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.4. Mobility in soil:	Koc		0,2-1				High
12.1. Toxicity to fish:	LC50	96h	20800	mg/l	Pimephales promelas		ASTM
12.1. Toxicity to fish:	LC50	96h	>=1000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.3. Bioaccumulative potential:	BCF		<100				Low
12.1. Toxicity to daphnia:	EC50	48h	>500	mg/l	Daphnia magna		
12.1. Toxicity to algae:	IC50	72h	>1000	mg/l	Pseudokirchneriella subcapitata		
12.2. Persistence and degradability:		28d	90	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		~-0,49				Not to be expected

Toxicity to bacteria:	EC50		>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:							Does not contain any organically bound halogens which can contribute to the AOX value in waste water.

4-hydroxy-4-methylpentan-2-one							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	420	mg/l	Lepomis macrochirus		
12.1. Toxicity to daphnia:	EC50	24h	9000	mg/l			
12.2. Persistence and degradability:							Not readily biodegradable
12.3. Bioaccumulative potential:	BCF		0,5				No
Toxicity to bacteria:	EC50	16h	825	mg/l	Pseudomonas putida		
Toxicity to bacteria:	EC50		17	mg/l	activated sludge		

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
08 03 12 waste ink containing hazardous substances
08 03 17 waste printing toner containing hazardous substances
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
E.g. suitable incineration plant.
E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.
Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

14.1. UN number: n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:
14.3. Transport hazard class(es): n.a.
14.4. Packing group: n.a.

Classification code:	n.a.
LQ:	n.a.
14.5. Environmental hazards:	Not applicable
Tunnel restriction code:	

Transport by sea (IMDG-code)

14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	n.a.
14.4. Packing group:	n.a.
Marine Pollutant:	n.a
14.5. Environmental hazards:	Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:	
14.3. Transport hazard class(es):	n.a.
14.4. Packing group:	n.a.
14.5. Environmental hazards:	Not applicable

14.6. Special precautions for user
Unless specified otherwise, general measures for safe transport must be followed.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Observe restrictions:
Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!
Comply with trade association/occupational health regulations.

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:	n.a.

These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Acute Tox. 4, H302	Classification according to calculation procedure.
Skin Irrit. 2, H315	Classification according to calculation procedure.
Eye Dam. 1, H318	Classification according to calculation procedure.
STOT SE 3, H336	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
H314 Causes severe skin burns and eye damage.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Acute Tox. — Acute toxicity - oral
Skin Irrit. — Skin irritation
Eye Dam. — Serious eye damage

STOT SE — Specific target organ toxicity - single exposure - narcotic effects
Flam. Liq. — Flammable liquid
Eye Irrit. — Eye irritation
Acute Tox. — Acute toxicity - dermal
Skin Corr. — Skin corrosion

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ASTM ASTM International (American Society for Testing and Materials)
ATE Acute Toxicity Estimate
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BSEF The International Bromine Council
bw body weight
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EC European Community
ECHA European Chemicals Agency
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
etc. et cetera
EU European Union
EVAL Ethylene-vinyl alcohol copolymer
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC (Code) International Bulk Chemical (Code)
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform Chemical Information Database
IUPAC International Union for Pure Applied Chemistry
LC50 Lethal Concentration to 50 % of a test population
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
OECD Organisation for Economic Co-operation and Development
org. organic
PBT persistent, bioaccumulative and toxic
PE Polyethylene
PNEC Predicted No Effect Concentration
ppm parts per million

PVC Polyvinylchloride
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
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RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SVHC Substances of Very High Concern
Tel. Telephone
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:
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