

Revision: 21.12.2022

Printing date: 21.12.2022

Version number 2 (replaces version 1)

SECTION 1: Identification of the substance/mixture and of the compared by the substance/mixture and of the compared by the substance of the su	C. C
1.1 Product identifier	
Trade name: <u>Conducting silver-lacquer</u> <u>Silberleitlack</u>	
Article number: 77953018	
<b>UFI:</b> 22N8-A0PX-V00V-02M7	
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b> Not approved for private consumers.	
Application of the substance / the mixture Lacquer	
1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier:	
Heimerle + Meule GmbH Dennigstrasse 16 D-75179 Pforzheim	
Telefon +49 (0) 7231 940-0 Telefax +49 (0) 7231 940-2199 www.heimerle-meule.com	
Further information obtainable from:	
Abteilung BASU - Bau/Arbeitssicherheit/Umwelt Department BASU - Construction / Occupational Safety / Environment sds@heimerle-meule.com	
IATA - 24h Emergency Contact - IATA - 24h Emergency Contact - (Dangerous goods emergency number) +49 172 739 6970	
1.4 Emergency telephone number:	
DEUTSCHLAND - GERMANY: Vergiftungs-Informations-Zentrale Freiburg, ++49 761 19240 (24 h) (Poisoning Information Center) <u>GREAT BRITAIN:</u> National Poisons Information Service +44 121 507 4123 Members of the public seeking specific information on poisons should contact:	
In England and Wales: NHS 111 - dial 111 - In Scotland: NHS 24 - dial 111 <u>IRELAND</u> +353 1 809 2166 (7 Days 8 am -10 pm)	
Healthcare Professionals: +353 1 809 2566 ITALY:	
Istituto Superiore di Sanità (ISS) +3906499906140 Centro Antiveleni	
Bergamo: +39 800 883300 Firenze +39 055 794 7819 Milano: +39 055 794 7819	
Roma +39 06 68593726 Roma +39 06 49978000 Roma +39 06 3954343	
<u>KROATIA - REPUBLIKA HRVATSKA:</u> (+385) 01 2348 342 ESTLAND - ESTONIA:	
Tervisemeti Mürgistusteabekeskuse National (24/7): 16662 (+372) 7943 794	
LETTLAND - LATVIA:	
Valsts Toksikoloģijas centrs, Saindēšanās un zāļu informācijas centrs,	(Contd. on p



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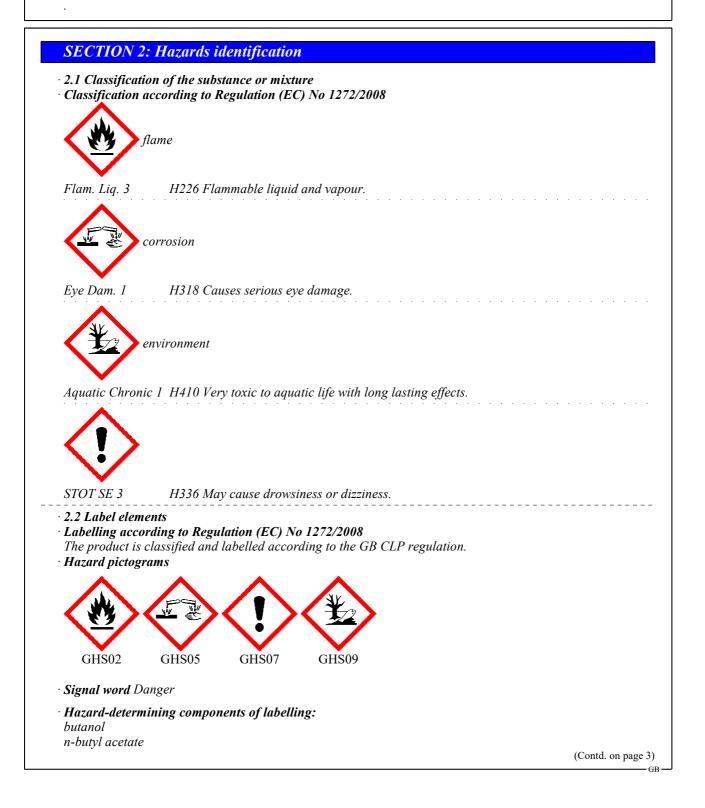
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(24h) 112 (24h) +371 67042473 <u>LITAUEN - LIETUVOS RESPUBLIKA:</u> Poison Information Bureau (24/7), Tel.: +8 5 236 20 52 Apsinuodijimų informacijos biuras





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· Hazard statements
H226 Flammable liquid and vapour.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements
P273 Avoid release to the environment.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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.
P405 Store locked up.
<i>P501</i> Dispose of contents/container in accordance with local/regional/national/international regulations.
· Additional information:
EUH208 Contains methyl methacrylate. May produce an allergic reaction.
2.3 Other hazards

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- **vPvB:** Not applicable.

# **SECTION 3: Composition/information on ingredients**

· 3.2 Mixtures

• Description: Mixture of substances listed below with nonhazardous additions.

CAS: 7440-22-4 EINECS: 231-131-3	Silver (Powder <1mm); silver < 1mm particle size; silver; Silver (Powder <0.0001mm); Nano silver as per EU recommended	≥25–≤50
	definition 〈 Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
CAS: 123-86-4 EINECS: 204-658-1	<i>n-butyl acetate; Butyl acetate; 1-Acetoxybutane; Acetic acid, butyl ester; Butyl ethanoate; TBAC</i>	10–25%
Index number: 607-025-00-1 RTECS: AF 7350000	<ul> <li>Flam. Liq. 3, H226</li> <li>STOT SE 3, H336</li> <li>EUH066</li> </ul>	
CAS: 71-36-3 EINECS: 200-751-6 Index number: 603-004-00-6 RTECS: EO 1400000	butanol; butyl alcohol (except tert-butyl alcohol); butan-1-ol; n- butanol; Butyl alcohol; 1-Butanol; Butyl hydroxide; Eastman n- Butyl Alcohol; n-Butyl alcohol Flam. Liq. 3, H226	<i>≥3–≤</i> 7%
	<ul> <li>Eye Dam. 1, H318</li> <li>Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335</li> <li>STOT SE 3, H336</li> </ul>	
CAS: 80-62-6 EINECS: 201-297-1	methyl methacrylate; methyl 2-methylprop-2-enoate; methyl 2- methylpropenoate	<i>≥</i> 0.5–<19
Index number: 607-035-00-6 RTECS: OZ 5075000	<ul> <li>Flam. Liq. 2, H225</li> <li>Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335</li> </ul>	

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## **SECTION 4: First aid measures**

- 4.1 Description of first aid measures
- General information:
- Immediately remove any clothing soiled by the product.
- Personal protection for the First Aider.
- Take affected persons out of danger area and lay down.
- Involve doctor immediately after a accident or unwell
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
- Immediately rinse with water.
- If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:
- Drink plenty of water and provide fresh air. Call for a doctor immediately. A person vomiting while laying on their back should be turned onto their side. Rinse out mouth and then drink plenty of water.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

# **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment:



Wear self-contained respiratory protective device.

Beware: Filter masks provide protection for a short period of time only. They should only be used in exceptional cases, that is if a small amount of the substance has spilled out or in order to fight spillages and fire

• Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter the sewage system.

## **SECTION 6:** Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Use respiratory protective device against the effects of fumes/dust/aerosol.
- Only handle and refill product in closed systems.
- · 6.2 Environmental precautions:
- Do not allow product to reach sewage system or any water course.
- Prevent seepage into sewage system, workpits and cellars.

Inform respective authorities in case of seepage into water course or sewage system.

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Do not allow to enter sewers/ surface or ground water. • 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

## **SECTION 7: Handling and storage**

· 7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

he usual precautionary measures are to be adhered to when handling chemicals.

Prevent formation of aerosols.

*Wear suitable respiratory protective device when decanting larger quantities without extractor facilities. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.* 

#### Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- **Requirements to be met by storerooms and receptacles:** Observe official regulations on storing packagings . Observe official regulations on storing packagings .

Prevent any seepage into the ground.

· Information about storage in one common storage facility: Store away from foodstuffs.

- · Further information about storage conditions:
- Keep container tightly sealed. Store under lock and key and out of the reach of children.

• Storage class: 3

• 7.3 Specific end use(s) No further relevant information available.

## **SECTION 8: Exposure controls/personal protection**

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace: CAS: 123-86-4 n-butyl acetate Short-term value: 966 mg/m<sup>3</sup>, 200 ppm WEL (Great Britain) Long-term value: 724 mg/m<sup>3</sup>, 150 ppm IOELV (European Union) Short-term value: 723 mg/m<sup>3</sup>, 150 ppm Long-term value: 241 mg/m<sup>3</sup>, 50 ppm AGW (Germany) Long-term value: 300 mg/m<sup>3</sup>, 62 ppm 2(I);AGS, YCAS: 56-81-5 glycerol WEL (Great Britain) Long-term value: 10 mg/m<sup>3</sup> AGW (Germany) Long-term value: 200 E mg/m<sup>3</sup> 2 (1);DFG, Y (Contd. on page 6)

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CAS: 71-36-3 butanol	(Contd. of page 5	
	Short-term value: 154 mg/m³, 50 ppm Sk	
	Long-term value: 310 mg/m³, 100 ppm 1(1);DFG, Y	
CAS: 80-62-6 methyl meth	acrylate	
	Short-term value: 416 mg/m³, 100 ppm Long-term value: 208 mg/m³, 50 ppm	
IOELV (European Union)	Short-term value: 100 ppm Long-term value: 50 ppm	
	Long-term value: 210 mg/m³, 50 ppm 2(1);DFG, EU, Y	
• <b>Regulatory information</b> WEL (Great Britain): EH4( IOELV (European Union): AGW (Germany): TRGS 90	(EU) 2019/1831	
Ingredients with biological	limit values:	
CAS: 71-36-3 butanol		
Probenna Paramete 10 mg/g I Untersuc Probenna	<ul> <li>y) 2 mg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: vor nachfolgender Schicht Parameter: Butan-1-ol (1-Butanol) (nach Hydrolyse)</li> <li>10 mg/g Kreatinin Untersuchungsmaterial: Urin Probennahmezeitpunkt: Expositionsende bzw. Schichtende Parameter: Butan-1-ol (1-Butanol) (nach Hydrolyse)</li> </ul>	
• Individual protection meas • General protective and hyg The usual precautionary me Keep away from foodstuffs,	easures are to be adhered to when handling chemicals. beverages and feed. led and contaminated clothing and at the end of work.	
Avoid contact with the eyes Avoid contact with the eyes According to EC Directive <b>Respiratory protection:</b> In case of brief exposure on use self-contained respirato	: and skin. 89/686/EEC r low pollution use respiratory filter device. In case of intensive or longer exposure	
exceptional cases, that is ij fire. according EN 14387 according to EN 143	f a small amount of the substance has spilled out or in order to fight spillages and (Contd. on page 7	

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• *Melting point/freezing point:* 



Undetermined.

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Boiling point or initial boiling point and boiling	I la determine d
range	Undetermined.
Flammability	Flammable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	23 - 60°C (73.4 - 140°F)
Ignition temperature:	>300°C (>572°F)
Decomposition temperature:	Not determined.
pН	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Fully miscible.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20°C (68°F):	1.4 g/cm <sup>3</sup> (11.68 lbs/gal)
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information	26-<30 %
Appearance:	2050 /8
Form:	Fluid
Important information on protection of health and	
environment, and on safety.	<i>u</i>
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of
Explosive properties.	explosive air/vapour mixtures are possible.
Solvent content:	
Organic solvents:	50-<54 %
Solids content:	40-45 %
Change in condition	40-45 /8
Evaporation rate	Not determined.
Information with regard to physical hazard classe	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable	
in the second seco	Void
gases in contact with water	
gases in contact with water Oxidising liquids	Void
Oxidising liquids	Void Void
Oxidising liquids Oxidising solids	Void
Oxidising liquids	

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· Desensitised explosives

Void

# SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

· 10.2 Chemical stability

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

• 10.3 Possibility of hazardous reactions Reacts with acids, alkalis and oxidising agents.

• 10.4 Conditions to avoid No further relevant information available.

• 10.5 Incompatible materials: No further relevant information available.

• 10.6 Hazardous decomposition products: No dangerous decomposition products known.

# **SECTION 11:** Toxicological information

· 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

· Acute toxicity

#### · LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral LD50 15,800–79,000 mg/kg (rat)

CAS: 123-86-4 n-butyl acetate

Oral LD50 14,000 mg/kg (rat)

Inhalative LC50/4 h > 21 mg/l (rat)

CAS: 56-81-5 glycerol

Dermal	LD50	10,000 mg/kg (Kanninchen)
Oral	LD50	12,600 mg/kg (Rat)

# CAS: 71-36-3 butanol Oral LD50 790 mg/kg (rat) Dermal LD50 3,400 mg/kg (rbt)

Inhalative LC50/4 h 8,000 mg/l (rat)

· Serious eye damage/irritation Causes serious eye damage.

· STOT-single exposure May cause drowsiness or dizziness.

• 11.2 Information on other hazards

• Endocrine disrupting properties

None of the ingredients is listed.

# **SECTION 12: Ecological information**

## · 12.1 Toxicity

• Aquatic toxicity:

CAS: 7440-22-4 Silver (Powder <1mm)

(Chronische) aquatische Toxizität 0.0008 mg/l (aquatic invertebrates)

· 12.2 Persistence and degradability No further relevant information available.

• 12.3 Bioaccumulative potential No further relevant information available.

• 12.4 Mobility in soil No further relevant information available.

• 12.5 Results of PBT and vPvB assessment Not applicable.

• **PBT:** Not applicable.

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· vPvB: Not applicable.

- · 12.6 Endocrine disrupting properties
- The product does not contain substances with endocrine disrupting properties.
- · 12.7 Other adverse effects

• Additional ecological information:

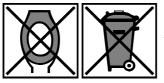
· General notes:

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground. Also poisonous for fish and plankton in water bodies.

**SECTION 13: Disposal considerations** 

· 13.1 Waste treatment methods

· Recommendation



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

• Waste disposal key:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

- · Uncleaned packaging:
- · Recommendation:

Disposal must be made according to official regulations.

Packaging which is uncleaned or soiled with product remains is to be treated like the product itself Packaging free of product remains is to be supplied refuse for recycling. Only if no adequate collecting system is available, they may be disposed of through the domestic rubbish

• *Recommended cleansing agents:* Water, if necessary together with cleansing agents.

· 14.1 UN number or ID number · ADR, IMDG, IATA	UN1263
· 14.2 UN proper shipping name · ADR · IMDG, IATA	UN1263 PAINT, ENVIRONMENTALLY HAZARDOUS PAINT
14.3 Transport hazard class(es)	
ADR	3 Flammable liquids.



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de name: Conducting silver-lacquer Silberleitlack	
	(Contd. of page
Label	3
IMDG, IATA	
Class	3 Flammable liquids.
Label	3
· 14.4 Packing group · ADR, IMDG, IATA	III
14.5 Environmental hazards: Special marking (ADR):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Flammable liquids.
Hazard identification number (Kemler code):	30
EMS Number: Stowage Category	<i>F-E,<u>S-E</u> A</i>
14.7 Maritime transport in bulk according to IM	
instruments	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
Transport category	3
· IMDG	
Limited quantities (LQ)	5L Carley El
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 50 ml Maximum net quantity per outer packaging: 1000 ml
IATA	
Remarks:	2.4
	24h emergency contact - (Dangerous goods emergency number)
	+49 172 739 6970
UN "Model Regulation":	UN 1263 PAINT, 3, III, ENVIRONMENTAL. HAZARDOUS

# **SECTION 15: Regulatory information**

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

COUNCIL DIRECTIVE 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)

DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on (Contd. on page 12) GB



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(Contd. of page 11) the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC

GADSL - Global Automotive Declarable Substance List

CAS: 7440-22-4 Silver (Powder < 1mm)

## · Directive 2012/18/EU

- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category
- El Hazardous to the Aquatic Environment
- P5c FLAMMABLE LIQUIDS
- $\cdot$  Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t
- $\cdot$  Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

· National regulations:

• Technical instructions (air):

Class	Share in %
NK	50-100

· Waterhazard class: .

· Other regulations, limitations and prohibitive regulations -

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

# **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

## · Reasons for revise

If necessary, this saftey data sheet can revised according to legal guidelines.

*Our current version for your reference is available on our website www.heimerle-meule.com* 

## · Relevant phrases

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

## · Department issuing SDS:

Abteilung BASU - Bau/Arbeitssicherheit/Umwelt Department BASU - Construction / Occupational Safety / Environment

sds@heimerle-meule.com

## · Contact:

Herr Thomas Knuth thomas.knuth@heimerle-meule.com sds@heimerle-meule.com



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(Contd. of page 12) · Abbreviations and acronyms: AwSV: Ordinance on facilities for handling water-polluting substances (German regulation). TRGS: Technical rules for hazardous substances (German regulation) ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids - Category 2 Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity - Category 4 Skin Irrit. 2: Skin corrosion/irritation - Category 2 Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Skin Sens. 1: Skin sensitisation – Category 1 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 • \* Data compared to the previous version altered.