



Printing date 02.03.2020 Version number 7 Revision: 13.11.2019

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

- · 1.1 Product identifier
- · Trade name: helmitin® 1526
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Product category PC1 Adhesives, sealants
- · Application of the substance / the mixture Adhesives
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

H.B. Fuller, Isar-Rakoll, S.A.

Estrada Nacional 13

PT-4486-851 Mindelo - Vila do Conde

+351 229 288 200

EU-MSDS@hbfuller.com

- · Informing department: Regulatory department
- 1.4 Emergency telephone number:

NCEC emergency service

+44 (0) 1235 239 670 (24 hours)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Flam. Lig. 2 H225 Highly flammable liquid and vapour.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Repr. 2 H361d Suspected of damaging the unborn child. STOT SE 3 H336 May cause drowsiness or dizziness.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS02 GHS07 GHS08





GHS09

· **Signal word** Danger

· Hazard-determining components of labelling:

toluene

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

· Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

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H319 Causes serious eye irritation.

H361d Suspected of damaging the unborn child.

H336 May cause drowsiness or dizziness.

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

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

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.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· 2.3 Other hazards

In the event of a large-scale use of the product, ignition sources in the immediate proximity and in low-lying areas, such as welding equipment, bells, heating elements, refrigerators, storage heaters, etc. should be switched off! Erect warning signs warning of the hazardous risk of explosive atmosphere!

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

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description:

Adhesive.

Polychloroprene

Dangerous components:		100501
EC number: 927-510-4 Reg.nr.: 01-2119475515-33	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics (*) Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	10-25%
CAS: 141-78-6 EINECS: 205-500-4 Reg.nr.: 01-2119475103-46-0000	ethyl acetate Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	10-25%
CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49-0000	acetone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	10-25%
EC number: 931-254-9 Reg.nr.: 01-2119484651-34	Hydrocarbons, C6, isoalkanes, <5% n-hexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	10-25%
CAS: 108-88-3 EINECS: 203-625-9 Reg.nr.: 01-2119471310-51-0000	toluene Flam. Liq. 2, H225; Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336	10-25%
CAS: 110-54-3 EINECS: 203-777-6 Reg.nr.: 01-2119480412-44	n-hexane Flam. Liq. 2, H225; Repr. 2, H361f; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	<2.5%
CAS: 8050-09-7 EINECS: 232-475-7 Reg.nr.: 01-2119480418-32-0000	Rosin Skin Sens. 1, H317	0.5-1%

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SE 3, H336

· Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information

Instantly remove any clothing soiled by the product.

Take affected persons into the open air.

- · After inhalation Supply fresh air; consult doctor in case of symptoms.
- · After skin contact

Instantly wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- · After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.
- · After swallowing Do not induce vomiting; instantly call for medical help.
- 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

Use fire fighting measures that suit the environment.

Water haze

Foam

Fire-extinguishing powder

Carbon dioxide

- · For safety reasons unsuitable extinguishing agents Water with a full water jet.
- 5.2 Special hazards arising from the substance or mixture

Can be released in case of fire

Carbon monoxide (CO)

Hydrogen chloride (HCI)

Carbon monoxide and carbon dioxide

Under certain fire conditions, traces of other toxic gases cannot be excluded.

- · 5.3 Advice for firefighters
- · Protective equipment: Do not inhale explosion gases or combustion gases.
- · Additional information

Cool endangered containers with water spray jet.

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

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Keep away from ignition sources

Wear protective clothing.

· 6.2 Environmental precautions:

Do not allow to enter drainage system, surface or ground water.

Inform respective authorities in case product reaches water or sewage system.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

Send for recovery or disposal in suitable containers.

Do not use tools that can cause ignition.

· 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 information on disposal.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed containers.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Take note of emission threshold.

Use solvent-proof equipment.

Keep out of the reach of children.

Information about protection against explosions and fires:



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Highly volatile, flammable constituents are released during processing.

Fumes can combine with air to form an explosive mixture.

Flammable mixtures may be formed in empty containers.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- · Requirements to be met by storerooms and containers: Provide solvent resistant, sealed floor.
- Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions:

Protect from heat and direct sunlight.

Store in cool, dry conditions in original sealed container

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

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

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8.1 C	ontrol parameters
Comp	ponents with limit values that require monitoring at the workplace:
141-7	8-6 ethyl acetate
WEL	Short-term value: 400 ppm Long-term value: 200 ppm
67-64	-1 acetone
WEL	Short-term value: 3620 mg/m³, 1500 ppm Long-term value: 1210 mg/m³, 500 ppm
108-8	8-3 toluene
WEL	Short-term value: 384 mg/m³, 100 ppm Long-term value: 191 mg/m³, 50 ppm Sk
110-5	4-3 n-hexane
WEL	Long-term value: 72 mg/m³, 20 ppm
8050-	09-7 Rosin
WEL	Short-term value: 0.15 mg/m³ Long-term value: 0.05 mg/m³ Sen
110-8	2-7 cyclohexane
WEL	Short-term value: 1050 mg/m³, 300 ppm

· DNELs

Ethyl acetate, CAS 141-78-6 (workers)

dermal Long-term (chronic) systemic: 63 mg/kg/day inhalative short term (acute) systemic: 1468 mg/m³ inhalative Long-term (chronic) local: 734 mg/m3 inhalative Short-term (acute) local: 1468 mg/m3 inhalative Long-term (chronic) systemic: 734mg/m³

Long-term value: 350 mg/m³, 100 ppm

Acetone, CAS 67-64-1

dermal Long-term (chronic) systemic: 186 mg/kg/day

Short-term (acute) local: 2420 mg/m3 inhalative Short term (acute) systemic: 1210 mg/m³ inhalative

Toluol CAS 108-88-3

Inhalation Kurzzeit – lokale Auswirkungen Arbeiter 343 mg/m3 Inhalation Kurzzeit – systemische Auswirkungen Arbeiter 384 mg/m3 Inhalation Langzeit – lokale Auswirkungen Arbeiter 192 mg/m3 Inhalation Langzeit – systemische Auswirkungen Arbeiter 192 mg/m3 Dermal Langzeit – systemische Auswirkungen Arbeiter 384 mg/kg

· PNECs

Ethyl acetate, CAS 141-78-6 Fresh water: 0,26 mg/l Marine water: 0.026 mg/l

Intermittent use/release: 1.65 mg/l Fresh water sediment: 1,25 mg/kg Marine sediment: 0,125 mg/kg

Soil: 0,24 mg/kg

Sewage treatment plant (STP): 650 mg/L

Acetone, CAS 67-64-1 Fresh water: 10,6 mg/l Marine water: 1,06 mg/l

Intermittent use/release: 21mg/l Fresh water sediment: 30,4 mg/kg

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Safety data sheet according to 1907/2006/EC, Article 31

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Marine sediment: 3,04 mg / kg

Soil: 29,5 mg / kg

Sewage treatment plant: 100 mg/l

Toluol CAS 108-88-3 Süßwasser 0,68 mg/l

Sediment (Süßwasser) 16,39 mg/kg

Boden 2,89 mg/kg

Kläranlage (STP) 13,61 mg/l

- · Additional information: The lists that were valid during the compilation were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment
- General protective and hygienic measures

The usual precautionary measures should be adhered to general rules for handling chemicals.

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing

Wash hands during breaks and at the end of the work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

- · Breathing equipment: Use breathing protection in case of insufficient ventilation.
- · Recommended filter device for short term use: Combination filter A-P2
- · Protection of hands:



Protective gloves.

Solvent resistant gloves

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Butyl rubber, BR

Penetration time of glove material

The information is based on literature data and information of glove manufacturers.

Value for the permeation: Level ≤ 4

• Eve protection:



Tightly sealed safety glasses.

· Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Fluid

Colour: Ember coloured

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· Odour: · Odour threshold:	Characteristic Not determined.
· pH-value:	Not determined.
Change in condition Melting point/freezing point: Initial boiling point and boiling range	Not determined : 55 °C (DIN 53171)
· Flash point:	-19 °C (DIN 53213)
Inflammability (solid, gaseous)	Not applicable.
Decomposition temperature:	Not determined.
Self-inflammability:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.
Critical values for explosion: Lower: Upper:	0.6 Vol % (EN 1839) 13.0 Vol % (EN 1839)
Vapour pressure at 20 °C:	233 hPa (DIN 51640)
Density at 20 °C Relative density Vapour density Evaporation rate	0.86 g/cm³ (DIN 51757) Not determined. Not determined. Not determined.
Solubility in / Miscibility with Water:	Not miscible or difficult to mix
Partition coefficient: n-octanol/water:	Not determined.
Viscosity: dynamic at 20 °C: kinematic:	1700 mPas (Brookfield (ISO 2555)) Not determined.
Solvent content: Organic solvents:	77.2 %
Solids content: 9.2 Other information	22.8 % (ISO 3251) No further relevant information available.

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 and stored according to specifications.

· 10.3 Possibility of hazardous reactions

Reacts with alcohols, amines, aqueous acids and alkalis

Develops readily flammable gases / fumes

- 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

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SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:			
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane			
LD50	12,705 mg/kg (rat)		
141-78-6 ethyl acetate			
LD50	5,620 mg/kg (rat)		
LDLo	100 mg/kg (-)		
LC50/4h	22.5 mg/l (rat)		
67-64-1 acetone			
LD50	5,800 mg/kg (rat)		
LD50	20,000 mg/kg (rbt)		
LC50/4h	76 mg/l (rat)		
108-88-3 toluene			
LD50	5,001 mg/kg (rat)		
LD50	12,124 mg/kg (rab)		
LC50/4h	49 mg/l (rat)		
	cbons, C6- LD50 ethyl acet LD50 LDL0 LC50/4h cetone LD50 LD50 LC50/4h toluene LD50 LD50		

- Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity

Suspected of damaging the unborn child.

STOT-single exposure

May cause drowsiness or dizziness.

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

SECTION 12: Ecological information

· 12.1 Toxicity

	•	
· Aquatic to	· Aquatic toxicity:	
141-78-6 e	thyl acetate	
EC50/72h	mg/l (rat)	
	mg/l (rbt)	
LC50/96h	230 mg/l (Pimephales promelas)	
IC50/48h	3,300 mg/l (Desmodesmus subspicatus)	
EC50/48h	717 mg/l (Daphnia magna)	
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					(Contd. of page 8)
67-64-1 ad	etone				
LC50/96h	8,300 mg/l (Lep	omis macrochirus)			
EC50/48h	12,600-12,700	mg/l (Daphnia magna)			
108-88-3 t	108-88-3 toluene				
LC50/96h	36.2 mg/l (Pime	ephales promelas)			
	13 mg/l (Carass	sius auratus)			
IC50/72h	12 mg/l (Selena	astrum capricornutum)			
EC50/48h	11.5 mg/l (Daphnia magna)				
· 12.2 Persi	12.2 Persistence and degradability				
141-78-6 e	ethyl acetate				
Bionedbry	Bionedbrytning / 28 dagar 100 % (-)				
67-64-1 ad	67-64-1 acetone				
Bionedbry	tning / 28 dagar	91 % (-)			

- · 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

Danger to drinking water if even small quantities leak into soil.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

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

Must be specially treated under adherence to official regulations.

· European	European waste catalogue		
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS		
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)		
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances		

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

GB

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14.1 UN-Number ADR, IMDG, IATA	UN1133
14.2 UN proper shipping name ADR	1133 ADHESIVES, ENVIRONMENTALLY HAZARDOUS
IMDG	ADHESIVES (HEPTANES, Naphtha (petroleum), hydrotreated light (*)), MARINE POLLUTANT
IATA	ADHESIVES
14.3 Transport hazard class(es)	
ADR, IMDG	
1 1 1 1 1 1 1 1 1 1	
Class Label	3 Flammable liquids. 3
IATA	
Class	2 Florenschio liquido
Class Label	3 Flammable liquids. 3
14.4 Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards:	Product contains environmentally hazardous substances: Naphtha (petroleum), hydrodesulfurize light dearomatized
Marine pollutant:	Yes
Consist marking (ADD)	Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
14.6 Special precautions for user Kemler Number:	Warning: Flammable liquids. 33
EMS Number:	53 F-E,S-D
Stowage Category	A
14.7 Transport in bulk according to Ann Marpol and the IBC Code	ex II of 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 m
Transport category	3

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· Tunnel restriction code · Remarks:	D/E Viscous according to ADR § 2.2.3.1.4 (Packaging group III and Tunnel restriction code 'E' when packed in receptacles not exceeding 450 L capacity)
IMDG Limited quantities (LQ) Excepted quantities (EQ) Remarks:	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml Viscous according to 2.3.2.2 of the IMDG code (Packaging group III when packed in receptacles not exceeding 450 L capacity)
· IATA · Remarks:	Viscous according to IATA § 3.3.3.1 (Packaging group III when packed in receptacles not exceeding 30 L capacity)
· UN "Model Regulation":	UN 1133 ADHESIVES, 3, III, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 48
- · National regulations
- · Technical instructions (air):

Class	Share in %
NK	50-100

- · Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- · **VOC (EU) %** 77.58 %
- · Code MAL 5-3
- · **VOC (EU)** 667.8 g/l
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

- H225 Highly flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.

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H336 May cause drowsiness or dizziness.

H361d Suspected of damaging the unborn child.

H361f Suspected of damaging fertility.

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

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

· Contact: EU-MSDS@hbfuller.com

· Abbreviations and acronyms:

ADR: Accord européen sur le transport 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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

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

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation - Category 1

Repr. 2: Reproductive toxicity – Category 2 Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2

Asp. Tox. 1: Aspiration hazard - Category 1

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

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

· * Data compared to the previous version altered.

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Annex: Exposure scenario 1

· Short title of the exposure scenario

ETHYL ACETATE (CAS141-78-6)

INDURSTRIAL USE IN RIGID FOAM, COATINGS, ADHESIVES AND SEALANTS

- · Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- · Product category PC1 Adhesives, sealants
- · Process category

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC5 Mixing or blending in batch processes

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC10 Roller application or brushing

PROC13 Treatment of articles by dipping and pouring

· Environmental release category

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

· Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

- · Conditions of use Customary application according to section 1.
- · Duration and frequency

8hrs (full working shift).

5 workdays/week.

- · Physical parameters
- · Physical state Liquid
- · Concentration of the substance in the mixture The substance is main component.
- · Used amount per time or activity 5500 tons per year
- · Other operational conditions
- Other operational conditions affecting environmental exposure No special measures required.
- Other operational conditions affecting worker exposure

Avoid contact with the skin and eyes.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

- Other operational conditions affecting consumer exposure Keep out of the reach of children.
- Other operational conditions affecting consumer exposure during the use of the product Not applicable.
- Risk management measures
- · Worker protection

Ensure adequate ventilation

Do not inhale gases / fumes / aerosols.

- · Organisational protective measures Keep good industrial hygiene.
- · Technical protective measures

Provide explosion-proof electrical equipment.

Keep containers tightly sealed.

Ensure that suitable extractors are available on processing machines

· Personal protective measures

Protective work clothing.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Tightly sealed safety glasses.

Protective gloves.

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· Measures for consumer protection

Ensure adequate labelling.

Keep locked up and out of the reach of children.

- Environmental protection measures
- · Water No special measures required.
- · Disposal measures Ensure that waste is collected and contained.
- · Disposal procedures

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

- · Waste type Partially emptied and uncleaned packaging
- · Exposure estimation
- · Worker (dermal) The calculated value is smaller than the DNEL.
- · Worker (inhalation) The calculated value is smaller than the DNEL.
- Environment The calculated value is smaller than the PNEC.
- · Consumer Not relevant for this Exposure Scenario.
- · Guidance for downstream users

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

GB

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Annex: Exposure scenario 2

· Short title of the exposure scenario

ACETONE (CAS 67-64-1)

Industrial Use in rigid foams, coatings adhesives and sealants

- · Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- · Product category PC1 Adhesives, sealants
- · Process category

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC5 Mixing or blending in batch processes

PROC7 Industrial spraying

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC14 Tabletting, compression, extrusion, pelletisation, granulation

PROC15 Use as laboratory reagent

- · Environmental release category ERC3 Formulation into solid matrix
- Description of the activities / processes covered in the Exposure Scenario

See section 1 of the annex to the Safety Data Sheet.

- · Conditions of use Customary application according to section 1.
- · Duration and frequency 5 workdays/week.
- · Physical parameters

The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.

- Physical state Fluid
- · Concentration of the substance in the mixture Raw material.
- · Other operational conditions

The usual precautionary measures should be adhered to general rules for handling chemicals.

- Other operational conditions affecting environmental exposure No special measures required.
- Other operational conditions affecting worker exposure

Avoid contact with eyes.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

- · Other operational conditions affecting consumer exposure Keep out of the reach of children.
- · Other operational conditions affecting consumer exposure during the use of the product Not applicable.
- · Risk management measures
- Worker protection
- Organisational protective measures No special measures required.
- · Technical protective measures

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines

· Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Tightly sealed safety glasses.

Protective gloves.

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· Measures for consumer protection

Ensure adequate labelling.

Keep locked up and out of the reach of children.

- · Environmental protection measures
- · Water No special measures required.
- Disposal measures Disposal must be made according to official regulations.
- Disposal procedures

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

- · Waste type Partially emptied and uncleaned packaging
- Exposure estimation
- · Consumer Not relevant for this Exposure Scenario.

GE

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Annex: Exposure scenario 3

· Short title of the exposure scenario

TOLUENE (CAS 108-88-3)

Industrial Use in rigid foams, coatings adhesives and sealants

· Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

· Product category PC1 Adhesives, sealants

· Process category

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC5 Mixing or blending in batch processes

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC14 Tabletting, compression, extrusion, pelletisation, granulation

PROC15 Use as laboratory reagent

· Environmental release category

ERC2 Formulation into mixture

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

Description of the activities / processes covered in the Exposure Scenario

See full text of the descriptors in section 1.

- · Conditions of use Customary application according to section 1.
- · Duration and frequency 5 workdays/week.
- · Physical parameters

The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.

- · Physical state Fluid
- · Concentration of the substance in the mixture Raw material.
- · Other operational conditions Observe the normal safety regulations when handling chemicals
- · Other operational conditions affecting environmental exposure

Observe section 6 of the Safety Data Sheet (Accidental release measures).

· Other operational conditions affecting worker exposure

Do not breathe gas/fume/vapour/aerosol.

Avoid contact with the skin and eyes.

Keep away from food, drink and animal feedingstuffs.

Keep away from sources of ignition - No smoking.

- Risk management measures
- · Worker protection
- · Organisational protective measures No special measures required.
- · Technical protective measures Ensure that suitable extractors are available on processing machines
- · Personal protective measures

The usual precautionary measures should be adhered to general rules for handling chemicals.

- · Exposure estimation
- · Consumer Not relevant for this Exposure Scenario.