

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name: Betol 3 P****Registration number** 01-2119448725-31-0004**1.2 Relevant identified uses of the substance or mixture and uses advised against**

This product is only for industrial and professional uses.

Application of the substance / the mixture inorganic binder / adhesive for industrial applications**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**Wöllner GmbH
Wöllnerstr. 26
D-67065 LudwigshafenTelefon +49 (0)621 5402 0
Telefax +49 (0)621 5402 411**Further information obtainable from:** thorsten.gehrmann@woellner.de - Tel.: +49 621 5402 314**1.4 Emergency telephone number:**Emergency CONTACT (24-Hour-Number): GBK GmbH +49 6132 84463
(GB) National Health Service: 111**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

corrosion

Eye Dam. 1 H318 Causes serious eye damage.



Skin Irrit. 2 H315 Causes skin irritation.

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

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

Hazard pictograms

GHS05

Signal word Danger**Hazard statements**

H315 Causes skin irritation.

H318 Causes serious eye damage.

Precautionary statements

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

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SECTION 3: Composition/information on ingredients

3.1 Substances

Dangerous components:

CAS: 1344-09-8	Silicic acid, sodium salt, MR > 1,6 < 2,6	25-50%
EINECS: 215-687-4	Eye Dam. 1, H318; Skin Irrit. 2, H315; STOT SE 3, H335	
Reg.nr.: 01-2119448725-31-0004	Specific concentration limit: STOT SE 3; H335: C ≥ 75 %	

SECTION 4: First aid measures

4.1 Description of first aid measures

General information Immediately remove any clothing soiled by the product.

After inhalation Supply fresh air; consult doctor in case of complaints.

After skin contact Immediately rinse with water.

After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing

Rinse out mouth and then drink plenty of water.

Call a doctor immediately.

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 extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture No further relevant information available.

5.3 Advice for firefighters

Protective equipment: No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Particular danger of slipping on leaked/spilled product.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Dilute with plenty of water.

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).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

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 Information about fire - and explosion protection: No special measures required.

Precautions for safe handling No special precautions are necessary if used correctly.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles:

Do not use light alloy receptacles.

Suitable material for receptacles and pipes: steel or stainless steel.

Unsuitable material for receptacle: aluminium.

Unsuitable material for receptacle: glass or ceramic.

Unsuitable material for receptacle: zinc.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

shelf life: 12 month from the loading date

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Keep receptacle tightly sealed.

Storage class 12 (TRGS 510)

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: Not required.

DNELs

Silicic acid, sodium salt:

DNEL dermal - workers, long-term = 1,59 mg/kg bw/d

DNEL inhalation - workers, long-term = 5,61 mg/m³ bw/d

DNEL dermal - general population, long-term = 0,80 mg/kg bw/d

DNEL inhalation - general population, long-term = 1,38 mg/m³ bw/d

DNEL oral - general population, long-term = 0,80 mg/kg bw/d

PNECs

Silicic acid, sodium salt:

freshwater = 7,5 mg/l

marine water = 1 mg/l

microorganisms in sewage treatment plants = 348 mg/l

water (intermittent releases) = 7,5 mg/l

sediment water = no hazard identified

Additional information:

Exposure scenario: see Annex

The lists valid during the making were used as basis.

8.2 Exposure controls

Appropriate engineering controls No further data; see item 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Respiratory protection: Not required.

Hand protection



Protective gloves.

Material of gloves

Natural Latex with small amount of polychloroprene Latex. (Lapren, Company KCL)

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.

Penetration time of glove material

Indications are based on information by the producer of the gloves resp. literature or derived from similar substances by analogy.

Value for the permeation: Level ≤ 6

Eye/face protection



Tightly sealed goggles.

Body protection: Alkaline resistant protective clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state

Fluid

Colour:

colourless or amber coloured

Odour:

Odourless

Odour threshold:

Not determined.

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Melting point/freezing point:	Not determined
Boiling point or initial boiling point and boiling range	> 100 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
pH at 20 °C	ca. 12.5
Viscosity:	
Kinematic viscosity	Not determined.
dynamic at 20 °C:	ca. 600 mPas
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:	ca. 1.55 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.

9.2 Other information	
Appearance:	
Form:	Fluid
Important information on protection of health and environment, and on safety.	
Explosive properties:	Product does not present an explosion hazard.
Organic solvents:	0.0 %
Change in condition	
Evaporation rate	Not determined.

Information with regard to physical hazard classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
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 gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
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**
Strong exothermic reaction with acids
Reacts with light alloys to form hydrogen
- 10.4 Conditions to avoid** No further relevant information available.
- 10.5 Incompatible materials:** No further relevant information available.

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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:

CAS: 1344-09-8 Silicic acid, sodium salt, MR > 1,6 < 2,6

Oral	LD 50	>2,000 mg/kg (rat)
	NOAEL	>159 mg/kg/Tag (rat)
Dermal	LD 50	>2,000 mg/kg (rat)

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye damage.

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: 1344-09-8 Silicic acid, sodium salt, MR > 1,6 < 2,6

LC 50 / 96h	>100 mg/l (zebra-fish)
EC 50 / 48h	>100 mg/l (Daphnia magna)
EC 0 / 18 h	>100 mg/l (Pseudomonas putida)
EC 50 / 72h	>100 mg/l (Scenedesmus subspicatus)

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

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

Behaviour in sewage processing plants:

The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Can be disposed off with rubble after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Hand over to hazardous waste disposers.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

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

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SECTION 14: Transport information

14.1 UN number or ID number ADR, ADN, IMDG, IATA	Void
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14.2 UN proper shipping name ADR, ADN, IMDG, IATA	Void
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14.3 Transport hazard class(es) ADR, ADN, IMDG, IATA Class	Void
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14.4 Packing group ADR, IMDG, IATA	Void
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14.5 Environmental hazards: Marine pollutant:	No
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14.6 Special precautions for user	Not applicable.
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14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
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UN "Model Regulation":	Void
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SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
Water hazard class:

water hazard class 1: slightly hazardous for water (in accordance with Regulation on facilities for the handling of water-endangering substances of 18 April 2017)

Other regulations, limitations and prohibitive regulations

Chemical Inventories:

Europe (EINECS): yes

Australia (AICS): yes

Canada (DSL): yes

US (TSCA): yes

Japan (ENCS): yes

Korea (KECI): yes

China (IECSC): yes

Taiwan (NECI): yes

Philippine (PICCS): yes

New Zealand (HSNO): yes

15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

The product is designed exclusively for professional/industrial application (see product information). This information is based on our level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Relevant phrases

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Department issuing SDS: Laboratory

Contact: Dr. Gehrmann

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

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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
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

* **Data compared to the previous version altered.**

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Annex: Exposure scenario

Product Definition: UVCB (Substance of Unknown or Variable composition, Complex reaction products or Biological materials)

Product Name: Silicic acid, sodium salt

SECTION 1: Title of exposure scenario

Overview of Exposure Scenarios

Exposure Scenario 01

Short title of exposure scenario: Manufacturing of soluble silicates

Sectors of use [SU]: -

Environmental contributing scenarios: ERC01

Health contributing scenarios: PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC07, PROC08a, PROC08b, PROC09, PROC15, PROC22, PROC23, PROC24, PROC28

Exposure Scenario 02

Short title of exposure scenario: Formulation of powders covering all molar ratios (detergents, adhesives, binders, surface technologies, other applications) - Industrial uses/ Formulation or re-packing

Sectors of use [SU]: SU02a, SU02b, SU04, SU05, SU06b, SU08, SU09, SU13, SU14, SU18, SU19, SU20

Environmental contributing scenarios: ERC02, ERC03

Health contributing scenarios: PROC01, PROC02, PROC03, PROC04, PROC05, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC14, PROC15, PROC19, PROC21, PROC22, PROC23, PROC24, PROC26, PROC28

Additional Information: Product category [PC]: PC01, PC03, PC08, PC14, PC15, PC20, PC23, PC24, PC26, PC32, PC34, PC35, PC39

Exposure Scenario 03

Short title of exposure scenario: Formulation of solutions covering all molar ratios (detergents, adhesives, binders, surface technologies, other applications) - Industrial uses/ Formulation or re-packing

Sectors of use [SU]: SU02a, SU02b, SU04, SU05, SU06b, SU08, SU09, SU13, SU14, SU15, SU18, SU19, SU20

Environmental contributing scenarios: ERC02, ERC03

Health contributing scenarios: PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC14, PROC15, PROC16, PROC19, PROC21, PROC22, PROC23, PROC24, PROC26, PROC28

Additional Information: Product category [PC]: PC01, PC03, PC08, PC09a, PC14, PC15, PC19, PC20, PC23, PC24, PC26, PC32, PC34, PC35, PC38, PC39

Exposure Scenario 04

Short title of exposure scenario: Industrial use of powders covering all molar ratios (detergents, adhesives, binders, surface technologies, other applications) - Industrial uses/ Formulation or re-packing

Sectors of use [SU]: SU02a, SU02b, SU04, SU05, SU06b, SU08, SU11, SU12, SU13, SU14, SU15, SU16, SU17, SU18, SU19, SU20

Environmental contributing scenarios: ERC04, ERC05, ERC06b, ERC06c

Health contributing scenarios: PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC14, PROC15, PROC17, PROC19, PROC21, PROC22, PROC23, PROC24, PROC25, PROC26, PROC28

Additional Information: Product category [PC]: PC01, PC03, PC08, PC09a, PC09b, PC14, PC15, PC18, PC20, PC24, PC25, PC26, PC32, PC34, PC35, PC37, PC38

Exposure Scenario 05

Short title of exposure scenario: Industrial use of solutions covering all molar ratios (detergents, adhesives, binders, surface technologies, other applications) - Industrial uses/ Formulation or re-packing

Sectors of use [SU]: SU02a, SU02b, SU04, SU05, SU06b, SU07, SU08, SU11, SU12, SU13, SU14, SU15, SU16, SU17, SU18, SU19, SU20

Environmental contributing scenarios: ERC04, ERC05, ERC06a, ERC06b, ERC06d, ERC07

Health contributing scenarios: PROC01, PROC02, PROC03, PROC04, PROC05, PROC06, PROC07, PROC08a, PROC08b, PROC09, PROC10, PROC13, PROC14, PROC15, PROC16, PROC17, PROC19, PROC21, PROC22, PROC23, PROC24, PROC25, PROC26, PROC28

Additional Information: Product category [PC]: PC01, PC03, PC08, PC09a, PC09b, PC14, PC15, PC18, PC19,

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PC20, PC23, PC25, PC26, PC32, PC33, PC34, PC35, PC37, PC38

Exposure Scenario 06

Short title of exposure scenario: Professional use of powders covering all molar ratios (adhesives, binders, surface technologies, other applications) - Professional uses/ Formulation or re-packing

Sectors of use [SU]: SU01, SU02a, SU02b, SU04, SU06b, SU07, SU13, SU14, SU15, SU19, SU20, SU23
Environmental contributing scenarios: ERC08a, ERC08b, ERC08c, ERC08d, ERC08e, ERC08f
Health contributing scenarios: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC14, PROC15, PROC19, PROC21, PROC24, PROC25, PROC28
Additional Information: Product category [PC]: PC01, PC08, PC09a, PC09b, PC14, PC15, PC19, PC20, PC21, PC31, PC35, PC37, PC38, PC39

Exposure Scenario 07

Short title of exposure scenario: Professional use of solutions covering all molar ratios (detergents, adhesives, binders, surface technologies, other applications) - Professional uses/ Formulation or re-packing

Sectors of use [SU]: SU01, SU02a, SU02b, SU04, SU06b, SU07, SU13, SU14, SU15, SU18, SU19, SU20, SU23
Environmental contributing scenarios: ERC08a, ERC08b, ERC08c, ERC08d, ERC08e, ERC08f, ERC09a, ERC09b
Health contributing scenarios: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC10, PROC11, PROC13, PROC14, PROC15, PROC19, PROC21, PROC24, PROC25, PROC28
Additional Information: Product category [PC]: PC01, PC08, PC09a, PC09b, PC14, PC15, PC19, PC20, PC21, PC26, PC31, PC35, PC37, PC38, PC39

Exposure Scenario 08

Short title of exposure scenario: Consumer use of powders covering all molar ratios (detergents, adhesives, binders, surface technologies, other applications) - Consumer uses/ Formulation or re-packing

Sectors of use [SU]: SU02a, SU13, SU19
Environmental contributing scenarios: ERC08a, ERC08b, ERC08c, ERC08d, ERC08e, ERC08f, ERC09a, ERC09b
Health contributing scenarios: Not applicable

Additional Information: Product category [PC]: PC01, PC03, PC08, PC09a, PC09b, PC14, PC15, PC31, PC35, PC39

Exposure Scenario 09

Short title of exposure scenario: Consumer use of solutions covering all molar ratios (detergents, adhesives, binders, surface technologies, other applications) - Consumer uses/ Formulation or re-packing

Sectors of use [SU]: SU02a, SU06b, SU13, SU18, SU19
Environmental contributing scenarios: ERC08a, ERC08b, ERC08c, ERC08d, ERC08e, ERC08f, ERC09a, ERC09b
Health contributing scenarios: Not applicable

Additional Information: Product category [PC]: PC01, PC03, PC08, PC09a, PC09b, PC14, PC15, PC26, PC31, PC35, PC37, PC39

Exposure Scenario 10

Short title of exposure scenario: Article life of powders with covering all molar ratios (adhesives, binders) - Consumer uses

Sectors of use [SU]: SU06b, SU13, SU14
Environmental contributing scenarios: ERC10a, ERC10b, ERC11a, ERC11b
Health contributing scenarios: Not applicable

Additional Information: Article Categories [AC]: AC01, AC02, AC05, AC06, AC31

Exposure Scenario 11

Short title of exposure scenario: Article life of solutions with covering all molar ratios (adhesives, binders, surface technologies, other applications) - Consumer uses/ Formulation or re-packing

Sectors of use [SU]: SU06b, SU13, SU14, SU15, SU17, SU19
Environmental contributing scenarios: ERC10a, ERC10b, ERC11a, ERC11b
Health contributing scenarios: Not applicable

Additional Information: Article Categories [AC]: AC01, AC02, AC05, AC06, AC31

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SECTION 2: Exposure controls

Contributing scenario controlling environmental exposure: As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

Contributing scenario controlling worker exposure:

Organisational measures to prevent/limit releases, dispersion and exposure:

As sodium silicate is manufactured in various molar ratios as lumps, powders or aqueous solutions, classification depends on the molar ratio of SiO₂ and Na₂O. According to table E.3-1 in the "Guidance on information requirements and chemical safety assessment Part E: Risk Characterisation" (ECHA, 2012), sodium silicate is allocated to the moderate hazard category for solutions and powders with MR ≤ 2.6 and for powders with molar ratio >2.6 - ≤3.2. Solutions with MR >2.6 - ≤3.2 were allocated to the low hazard category.

Moderate hazard category:

- Containment as appropriate.
- Minimise number of staff exposed.
- Segregation of the emitting process.
- Effective contaminant extraction.
- Good standard of general ventilation.
- Minimisation of manual phases.
- Avoidance of contact with contaminated tools and objects.
- Regular cleaning of equipment and work area.
- Management/supervision in place to check that the RMMs in place are being used correctly and OCs followed.
- Training for staff on good practice.
- Good standard of personal hygiene.

Low hazard category:

- Minimisation of manual phases/work tasks.
- Work procedures minimising splashes and spills.
- Avoidance of contact with contaminated tools and objects.
- Regular cleaning of equipment and work area.
- Management/supervision in place to check that the RMMs in place are being used correctly and OCs followed.
- Training for staff on good practice.
- Good standard of personal hygiene.

Conditions and measures related to personal protection, hygiene and health evaluation:

Personal Protection:

Moderate hazard category:

- Substance/Task appropriate gloves. Wear suitable gloves tested to EN374.
- Skin coverage with appropriate barrier material based on potential for contact with the chemicals.
- Substance/task appropriate respiratory protection. Wear a respirator conforming to EN140 with type A/P2 filter or better.
- Optional face shield.
- Eye Protection/Chemical goggles.

Low hazard category:

- Chemical goggles.
- Wear suitable face shield.
- Substance/Task appropriate gloves.
- Full skin coverage with appropriate light-weight barrier material.

Besides the product integrated risk mitigation measures, consumer instructions and the communication on the safe use should be implemented, including technical use instructions, instructions on use of protective clothing and behaviour, storage and disposal instructions.

SECTION 3: Exposure estimation and reference to its source

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Environment: All Contributing scenarios

Exposure assessment (Environment): As no environmental hazard was identified, no environmental-related exposure assessment and risk characterisation was performed.

Exposure estimation: No environmental risk assessment was performed.

Workers: All Contributing scenarios

Exposure assessment (Human): A quantitative risk assessment is not required for human health. Risk management measures are based on qualitative risk characterisation.

Exposure estimation: Qualitative approach used to conclude safe use.

SECTION 4: Guidance to DU to evaluate whether he works inside the boundaries set by the ES**General**

The immediate downstream user is required to evaluate whether the operational conditions and risk management measures described in the exposure scenario fit to his use. The implemented RMMs and OCs, including PPE will ensure that workers' exposure is reduced in a way that health hazard effects are avoided and that the risk of skin and eye irritation is considered to be adequately controlled. If other OC/RMM are adopted, the user has to ensure that risks are managed to at least equivalent levels.

RMM: Risk Management Measures

OC: Operational Conditions