

according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

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

- · 1.1 Product identifier
- Trade name: Chromium, standard solution 1000 mg/l Cr for AA (chromium(III) nitrate in nitric acid 0,5 mol/l)
- · Article number: CR0222
- **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- · Application of the substance / the preparation: Laboratory reagent
- · 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Scharlab, S.L.
   C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN
   Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
   email: scharlab@scharlab.com
   Internet Web Site: www.scharlab.com

Regional representation: Scharlab, S.L. C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65 email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

• Further information obtainable from: technical department

• **1.4 Emergency telephone number:** Please contact the regional Scharlab distributor/dealer in your country During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

## **SECTION 2: Hazards identification**

· 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

GHS07

Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2 H319 Causes serious eye irritation.

· 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* 



- · Signal word Warning
- *Hazard-determining components of labelling:* nitric acid
- *Hazard statements* H315 Causes skin irritation.

(Contd. on page 2)



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

<b>rade name:</b> Chromium, s mol/l)	tandard solution 1000 mg/l	Cr for AA (chromium(III) ni	trate in nitric acid 0,5
			(Contd. of page 1
H319 Causes serious	eye irritation.		(conta: of page )
· Precautionary staten			
	sh thoroughly after handling	j.	
P305+P351+P338 IF l len	ar protective gloves / eye p N EYES: Rinse cautiously ses, if present and easy to o kin irritation occurs: Get me	with water for several min lo. Continue rinsing.	utes. Remove contac
P362+P364 Tak	e off contaminated clothing ye irritation persists: Get me	and wash it before reuse.	
· Results of PBT and v	PvB assessment		
• <b>PBT:</b> Not applicable.			
• <b>vPvB:</b> Not applicable.			<u>e</u>
		······································	
SECTION 3: Com	position/information	on ingredients	
• 3.2 Chemical charact • Description: Aqueous			
· Dangerous compone	ents:		
CAS: 7697-37-2 EINECS: 231-714-2	nitric acid	1272; 🚸 Skin Corr. 1A, H3	
CAS: 7697-37-2 EINECS: 231-714-2 Reg.nr.: 01-211948729	Ox. Liq. 2, 97-23-XXXX	-	14
CAS: 7697-37-2 EINECS: 231-714-2 Reg.nr.: 01-211948729	🚸 Ox. Liq. 2, I	-	14
CAS: 7697-37-2 EINECS: 231-714-2 Reg.nr.: 01-211948729	Ox. Liq. 2, 97-23-XXXX on: For the wording of the list	-	
CAS: 7697-37-2 EINECS: 231-714-2 Reg.nr.: 01-211948729 • Additional information SECTION 4: First • 4.1 Description of first • After inhalation:	Ox. Liq. 2, 97-23-XXXX on: For the wording of the list aid measures st aid measures	ated hazard phrases refer to	o section 16.
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CAS: 7697-37-2 EINECS: 231-714-2 Reg.nr.: 01-211948729 • Additional information SECTION 4: First • 4.1 Description of firs • After inhalation: In case of unconscious • After skin contact: Im • After eye contact: Rinse opened eye for • After swallowing: If s • 4.2 Most important s No further relevant info • 4.3 Indication of any	© Ox. Liq. 2, 97-23-XXXX on: For the wording of the list aid measures st aid measures sness place patient stably in mediately wash with water several minutes under runn ymptoms persist consult do ymptoms and effects, both prmation available. immediate medical attent	side position for transporta and soap and rinse thoroug ng water. If symptoms pers ctor. h acute and delayed	ation. ghly. sist, consult a doctor.
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CAS: 7697-37-2 EINECS: 231-714-2 Reg.nr.: 01-211948729 • Additional information SECTION 4: First • 4.1 Description of first • After inhalation: In case of unconscious • After skin contact: In • After eye contact: Rinse opened eye for • After swallowing: If s • 4.2 Most important s No further relevant info • 4.3 Indication of any No further relevant info • 5.1 Extinguishing me • Suitable extinguishing CO2, powder or water • 5.2 Special hazards a	Ox. Liq. 2, 97-23-XXXX on: For the wording of the list aid measures st aid measures st aid measures sness place patient stably in mediately wash with water several minutes under runn ymptoms persist consult do ymptoms and effects, both primation available. immediate medical attent formation available. immediate medical attent formation available. ighting measures edia agents: spray. Fight larger fires with origing from the substance	aside position for transport and soap and rinse thorous ng water. If symptoms pers ctor. <b>In acute and delayed</b> <b>Son and special treatment</b>	ation. ghly. sist, consult a doctor.
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(Contd. of page 2)

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

- · 6.1 Personal precautions, protective equipment and emergency procedures Not required.
- 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). 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

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

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

- 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep container tightly sealed.
- · 7.3 Specific end use(s) No further relevant information available.

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

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:
- 7697-37-2 nitric acid

WEL Short-term value: 2.6 mg/m<sup>3</sup>, 1 ppm

- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · 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 and skin.
- **Respiratory protection:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

(Contd. on page 4)



according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

Trade name: Chromium, standard solution 1000 mg/I Cr for AA (chromium(III) nitrate in nitric acid 0,5 mol/l)

(Contd. of page 3)

#### · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

#### Eye protection:



Tightly sealed goggles

#### SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- General Information
- · Appearance:
  - Form:
- Colour: · Odour:
- · Odour threshold:
- pH-value:
- · Change in condition Melting point/freezing point: Initial boiling point and boiling range: 100 °C
- · Flash point:
- Flammability (solid, gas):
- · Decomposition temperature:
- Auto-ignition temperature:
- Explosive properties:
- Explosion limits: Lower: **Upper:**
- Vapour pressure at 20 °C:
- · Density:

- Fluid Violet Odourless Not determined.
- Not determined.
- Undetermined.
- Not applicable.
- Not applicable.
- Not determined.
- Product is not selfigniting.
- Product does not present an explosion hazard.

Not determined. Not determined.

23 hPa

Not determined.

(Contd. on page 5)



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Printing date 31.07.2018

Revision: 04.07.2018

<ul> <li>Relative density</li> <li>Vapour density</li> <li>Evaporation rate</li> </ul>	Not determined. Not determined. Not determined.
<ul> <li>Solubility in / Miscibility with water:</li> </ul>	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: Dynamic: Kinematic:	Not determined. Not determined.
<ul> <li>Solvent content: Organic solvents: Water:</li> </ul>	0.0 % 96.1 %
Solids content: • 9.2 Other information	0.8 % 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 according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 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 toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- · 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 Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

#### **SECTION 12: Ecological information**

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.

(Contd. on page 6)



according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

Trade name: Chromium, standard solution 1000 mg/I Cr for AA (chromium(III) nitrate in nitric acid 0,5 mol/l)

(Contd. of page 5)

- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · 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.

- 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 together with household garbage. Do not allow product to reach sewage system.

UN3264

- · Uncleaned packaging:
- **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

#### **SECTION 14: Transport information**

- · 14.1 UN-Number
- · ADR, IMDG, IATA
- 14.2 UN proper shipping name
- · ADR
- · IMDG, IATA
- 14.3 Transport hazard class(es)
- · ADR. IMDG. IATA



#### · Class

- · Label
- 14.4 Packing group
- ADR, IMDG, IATA
- · 14.5 Environmental hazards:
- · Marine pollutant:
- · 14.6 Special precautions for user · Danger code (Kemler):
- · EMS Number:
- Segregation groups
- Stowage Category
- Stowage Code
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

8 Corrosive substances. 8

N.O.S. (NITRIC ACID)

N.O.S. (NITRIC ACID)

Ш

No Warning: Corrosive substances. 80 F-A,S-B Acids Α

3264 CORROSIVE LIQUID, ACIDIC, INORGANIC,

CORROSIVE LIQUID, ACIDIC, INORGANIC,

SW2 Clear of living quarters.

Not applicable.

(Contd. on page 7)



according to 1907/2006/EC, Article 31 (REACH)

Printing date 31.07.2018

Revision: 04.07.2018

<b>Trade name:</b> Chromium, standard solution 1000 mg/l Cr for AA (chromium(III) nitrate in nitric acid 0,5 mol/l)				
· Transport/Additional information	(Contd. of page 6)			
<ul> <li>ADR</li> <li>Limited quantities (LQ)</li> <li>Transport category</li> <li>Tunnel restriction code</li> <li>UN "Model Regulation":</li> </ul>	5L 3 E UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III			

### **SECTION 15: Regulatory information**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has 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.

#### · Relevant phrases

H272 May intensify fire; oxidiser.

H314 Causes severe skin burns and eye damage.

- Classification according to Regulation (EC) No 1272/2008 The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
- · Department issuing SDS: product safety department
- · Contact: msds@scharlab.com

#### 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 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)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Ox. Liq. 2: Oxidizing liquids Category 2
- Skin Corr. 1A: Skin corrosion/irritation Category 1A Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation Category 2

(Contd. on page 8)



according to 1907/2006/EC, Article 31 (REACH)

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(Contd. of page 7)

#### Annex: Exposure scenario 1

- 1 Short title of the exposure scenario Exposure scenario: Nitric acid 65% Industrial use
- · Sector of Use
- SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- Product category PC21 Laboratory chemicals
- Process category 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)
- · 2 Conditions of use
- · Duration and frequency 8hrs (full working shift).
- · 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 The substance is main component.
- Other operational conditions Observe the general safety regulations when handling chemicals.
- Other operational conditions affecting environmental exposure No special measures required.

#### · Other operational conditions affecting worker exposure

- Avoid contact with eyes.
- Avoid contact with the skin.

Keep away from combustible material.

- · Other operational conditions affecting consumer exposure No special measures required.
- Other operational conditions affecting consumer exposure during the use of the product The consumer has to be advised of warnings regarding overdosage in the instructions for use. The directions for use must indicate the limits for proper use.
- · Risk management measures 🔿

· Worker protection

· Organisational protective measures

Surround with a dyke storage facilities to prevent contamination of soil and water in case of spillage Handle in a fume cupboard or under extract ventilation

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Provide a good standard of controlled ventilation (10 to 15 air changes per hour) Keep away from food, beverages and animal feed.

- Provide Internal Plant Instruction.
- Technical protective measures

Ensure that suitable extractors are available on processing machines Use only in well ventilated areas.

Store in cool, dry place in tightly closed receptacles.

Only handle and refill product in closed systems.

Carry out filling operations only at sites with extractors available.

#### Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes. Tightly sealed goggles

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

(Contd. on page 9)



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

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Tr	ade name: Chromium, standard solution 1000 mg/l Cr for AA (chromium(III) nitrate in nitric acid 0,5 mol/l)
	(Contd. of page 8) Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
	Wear suitable gloves (tested to EN374)
	If ventilation is inadequate, use respirator that will protect against dust/mist. Filter P2SL (EN 143,
	140), acid gas filter (Type E). Self-contained respirator (DIN EN 133). Detailed measures on hand protection according to Safety Data Sheet, section 8.
	Measures for consumer protection Ensure adequate labelling.     Environmental protection measures
	Air No special measures required.     Water
	Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.
	Do not allow to reach ground water, water bodies or sewage system, not even in small quantities. Do not allow to reach sewage system.
	Soil No special measures required.
	· Disposal measures
	Disposal must be made according to official regulations.
	Ensure that waste is collected and contained.
	• <b>Disposal procedures</b> Must not be disposed together with household garbage. Do not allow product to reach sewage
	system.
	· Waste type
	Partially emptied and uncleaned packaging
	Aqueous solution
	Uncleaned packaging
	• 3 - Exposure estimation
	The MEASE tool has been used to estimate workplace exposures unless otherwise indicated.
	Worker (oral)     No significant oral exposure
	The calculated value is smaller than the DNEL.
	· Worker (dermal)
	No significant dermal exposure
	The calculated value is smaller than the DNEL.
	• Worker (inhalation) The calculated value is smaller than the DNEL.
	· Environment
	Detailed information on the estimation of the environmental exposure can be found at http://
	ecb.jrc.ec.europa.eu/euses/. • 4 - Guidance for downstream users
	Whether the downstream user acts within the scope of the Exposure Scenario can be verified
	based on the information in sections 1 to 8.
	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.
	For the risk assessment, the tools recommended by ECHA can be used.
	(Contd. on page 10)
	(Conta. on page 10)



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(Contd. of page 9)

#### Annex: Exposure scenario 2

- **1 Short title of the exposure scenario** Exposure scenario: Nitric acid 65% Laboratory use
- · Sector of Use

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

- Product category PC21 Laboratory chemicals
- Process category PROC15 Use as laboratory reagent
- · Environmental release category
- ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
- ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
- ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor) 2 Conditions of use
- · Duration and frequency 8hrs (full working shift).
- · 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 The substance is main component.
- · Other operational conditions Observe the general safety regulations when handling chemicals.
- · Other operational conditions affecting environmental exposure No special measures required.
- · Other operational conditions affecting worker exposure
- Avoid contact with eyes.
- Avoid contact with the skin.
- Keep away from combustible material.
- · Other operational conditions affecting consumer exposure No special measures required.
- Other operational conditions affecting consumer exposure during the use of the product The consumer has to be advised of warnings regarding overdosage in the instructions for use.
- The directions for use must indicate the limits for proper use.
- · Risk management measures

Worker protection

#### Organisational protective measures

Surround with a dyke storage facilities to prevent contamination of soil and water in case of spillage Handle in a fume cupboard or under extract ventilation

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Provide a good standard of controlled ventilation (10 to 15 air changes per hour) Keep away from food, beverages and animal feed.

Provide Internal Plant Instruction.

#### Technical protective measures

Ensure that suitable extractors are available on processing machines Use only in well ventilated areas.

Store in cool, dry place in tightly closed receptacles.

Only handle and refill product in closed systems.

Carry out filling operations only at sites with extractors available.

Personal protective measures
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the skin.
 Avoid contact with the eyes.

Tightly sealed goggles

#### Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 11)



according to 1907/2006/EC, Article 31 (REACH)		
Printing date 31.07.2018	Revision: 04.07.2018	
<b>Trade name:</b> Chromium, standard solution 1000 mg/l Cr for AA mol/l)	A (chromium(III) nitrate in nitric acid 0,5	
	(Contd. of page 10)	
Due to missing tests no recommendation to the glove ma		
preparation/ the chemical mixture. Selection of the glove material on consideration of the per	netration times, rates of diffusion and the	
degradation		
Wear suitable gloves (tested to EN374)	e a sein at durct/mist Eilten DOOL (EN 442	
If ventilation is inadequate, use respirator that will protect 140), acid gas filter (Type E). Self-contained respirator (DIN Data iked gas filter (Type E).	N EN 133).	
Detailed measures on hand protection according to Safety		
<ul> <li>Measures for consumer protection Ensure adequate lab</li> <li>Environmental protection measures</li> </ul>	bening.	
Air No special measures required.		
· Water		
Generally, prior to the introduction of wastewater into was	tewater treatment plants a neutralisation	
is required.		
Do not allow to reach ground water, water bodies or sewag	e system, not even in small quantities.	
Do not allow to reach sewage system.		
• Soil No special measures required.		
Disposal measures		
Disposal must be made according to official regulations.		
Ensure that waste is collected and contained.		
· Disposal procedures		
Must not be disposed together with household garbage.	. Do not allow product to reach sewage	
system.		
Waste type		
Partially emptied and uncleaned packaging		
Aqueous solution Uncleaned packaging		
· 3 - Exposure estimation		
The MEASE tool has been used to estimate workplace exp	osures unless otherwise indicated	
• Worker (oral)		
No significant oral exposure		
The calculated value is smaller than the DNEL.		
· Worker (dermal)		
No significant dermal exposure		
The calculated value is smaller than the DNEL.		
· Worker (inhalation) The calculated value is smaller than t	he DNEL.	
·Environment		
Detailed information on the estimation of the environm	ental exposure can be found at http://	
ecb.jrc.ec.europa.eu/euses/.		

· 4 - Guidance for downstream users

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

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.

For the risk assessment, the tools recommended by ECHA can be used.