

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier****Commercial Product Name****Kemira Ecox-C**Chemical name: Disodium carbonate, hydrogen peroxide (2:3)**Registration number:**

01-2119457268-30 (SE11)

1.2 Relevant identified uses of the substance or mixture and uses advised against**Use of the Substance/Mixture**

Bleaching agent in detergents and purifiers.

Recommended restrictions on use

There are no uses advised against.

1.3 Details of the supplier of the safety data sheetKEMIRA KEMI AB
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Carechem 24 International: +44 (0) 1235 239 670

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification according to Regulation (EU) 1272/2008(CLP)**

Oxidizing solids; Category 3; May intensify fire; oxidiser.

Acute toxicity; Category 4; Harmful if swallowed.

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

Serious eye damage; Category 1; Causes serious eye damage.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Oxidising; Contact with combustible material may cause fire.

Harmful; Harmful if swallowed.

Irritant; Risk of serious damage to eyes.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

: Danger

Hazard statements

: H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H318 Causes serious eye damage.

Precautionary statements

: **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P220 Keep/Store away from clothing/ Flammable/ combustible materials.
P280 Wear protective gloves/ protective clothing/ eye protection.
Response:
P370 + P378 In case of fire: Use water spray for extinction.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage:
P402 Store in a dry place.
P411 Store at temperatures not exceeding 40 °C/ 104 °F.

2.3 Other hazards

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	CAS-No. EINECS-No. / ELINCS No.	Concentration [%]
Sodium percarbonate	15630-89-4 239-707-6	>= 80

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Move to fresh air.

Wash off with plenty of water.

Inhalation

Move to fresh air. Keep patient warm and at rest. Rinse with water. Oxygen or artificial respiration if needed. Consult a physician if necessary.

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Eye contact

Important! In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If possible use lukewarm water. Obtain medical attention.

Ingestion

Rinse mouth with water. Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get immediate medical advice/ attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Ingestion may provoke the following symptoms:, Gastrointestinal discomfort, Fissuring, May cause irreversible eye damage.

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treatment : Keep warm and in a quiet place.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

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Print Date:11.01.2016

Extinguishing media : Foam
Water
powder
Unsuitable : Carbon dioxide (CO2)
extinguishing media

5.2 Special hazards arising from the substance or mixture

Not combustible. Contact with water or heating causes the release of oxygen. Exothermic reaction
Contact with combustible material may cause fire. The pressure in sealed containers can increase under the influence of heat.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus and protective suit.

5.4 Specific methods

Use a water spray to cool fully closed containers. Contact with water or heating causes the release of oxygen.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition. Do not smoke.

6.2 Environmental precautions

Local authorities should be advised if significant spillages cannot be contained. Prevent further leakage or spillage if safe to do so. Dam up. Transfer to steel drums with a lid. Suitable material for picking up Dry sand

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Shovel into a dry metal container. The pressure in sealed containers can increase under the influence of heat. After cleaning, flush away traces with water. Never return spills in original containers for re-use.

6.4 Reference to other sections

Unsuitable material for picking up: Organic materials Sawdust

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Never return spills in original containers for re-use. Keep away from fire (No Smoking). Decomposes in contact with water.

Avoid dust formation.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from open flames, hot surfaces and sources of ignition. Keep away from direct sunlight. Keep

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

in a well-ventilated place. Do not store near combustible materials. Recommended storage temperature: < 40

Avoid moisture. > 70 % RH (relative humidity) Store in accordance with the particular national regulations.

Materials to avoid:

Water, Acids and bases, Reducing agents, Organic materials, metal ions (e.g. Mn, Fe, Cu, Ni, Cr, Zn), metal oxides, metal salts

7.3 Specific end use(s)

Not listed

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Limit Values

DNEL	:	End Use: Workers Exposure routes: dermal Potential health effects: May cause eye and skin irritation. Value: 12,8 mg/cm ² Acute, Local effects
DNEL	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Respiratory irritation Value: 5 mg/m ³ Long-term, Local effects
DNEL	:	End Use: Consumer use Exposure routes: dermal Potential health effects: May cause eye and skin irritation. Value: 6,4 mg/cm ² Acute, Local effects
PNEC	:	Fresh water Value: 0,035 mg/l
PNEC	:	Marine water Value: 0,035 mg/l
PNEC	:	Intermittent use/release Value: 0,035 mg/l

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

PNEC : STP
Value: 16,24 mg/l

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Avoid dust formation. Ensure adequate ventilation, especially in confined areas.
Ensure that eyewash stations and safety showers are close to the workstation location.

8.2.2 Individual protection measures, such as personal protective equipment

Hand protection

Glove material: PVC or other plastic material gloves, Break through time: 240 - 480 min, Do not wear leather gloves. Do not wear cotton gloves.

Eye protection

Tightly fitting safety goggles

Skin and body protection

Long sleeved clothing

Respiratory protection

Dust safety masks are recommended when the dust concentration is more than 10 mg/m³.
Recommended Filter type: (filter P2)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information (appearance, odour)

Physical state	solid, granules
Colour	white
Odour	none

Important health safety and environmental information

pH	10,4 - 10,7 (10 g/l, 20 °C)
Freezing point :	no data available
Explosive properties:	
Bulk density	900 - 1 200 kg/m ³

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

Solubility(ies):

Water solubility 140 g/l (20 °C)

Oxidising

Oxidizing properties (solids)

9.2 Other data

SADT:

not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

Decomposes when moist.

10.3 Possibility of hazardous reactions

Hazardous reactions : Exothermic reaction with acids and water.

10.4 Conditions to avoid

Conditions to avoid : Recommended storage temperature: < 40 °C
Decomposes on heating.
Decomposes when moist.
Stable under normal conditions.

10.5 Incompatible materials

Materials to avoid : Water
Acids and bases
Reducing agents
Organic materials
metal ions (e.g. Mn, Fe, Cu, Ni, Cr, Zn)
metal oxides
metal salts

10.6 Hazardous decomposition products

Hazardous decomposition products : Oxygen
Water
Steam
Heat.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Acute toxicity**

Remarks:Harmful if swallowed.

Sodium percarbonate:

LD50/Oral/rat: 1 034 mg/kg

LC50/Inhalation/mouse: 1,2 mg/l

Remarks: sodium carbonate

LC50/Inhalation/4 h/rat: > 0,17 mg/l

Remarks: HYDROGEN PEROXIDE, AQUEOUS SOLUTION

LD50/Dermal/rabbit: > 2 000 mg/kg

Irritation and corrosion

Skin: Mild skin irritation

Remarks: May cause skin irritation in susceptible persons. Prolonged or repeated contact may dry skin and cause irritation. Prolonged skin contact may defat the skin and produce dermatitis.

Eyes: irritating

Risk of serious damage to eyes.

Mucous membranes:

Remarks: May cause irritation of the mucous membranes. Nose bleeding

Sensitisation

guinea pig/OECD Test Guideline 406: Not sensitizing.

Long term toxicity

Carcinogenicity

IARC : Not believed to be a carcinogen.

Mutagenicity

Remarks: no data available

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

Reproductive toxicity

/rat/Reproductive effects:

Remarks: no data available

Other information

Remarks: Ingestion may cause nausea, vomiting, sore throat, stomach-ache and eventually lead to a perforation of the intestine.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity effects

Aquatic toxicity

–

Remarks: Harmful to aquatic organisms., The risk to the environment is limited due to the product properties.

Remarks: Harmful to aquatic organisms.

Sodium percarbonate:

LC50/96 h/Pimephales promelas (fathead minnow): 70,7 mg/l

EC50/48 h/Daphnia: 4,9 mg/l

Toxicity to other organisms

no data available

12.2 Persistence and degradability

Biological degradability:

not applicable inorganic compound

Chemical degradation:

The product dissociates to sodium carbonate and hydrogen peroxide, which further decompose to

carbon dioxide/bicarbonate/carbonate. , Water and Oxygen

12.3 Bioaccumulative potential

Does not bioaccumulate.

12.4. Mobility in soil**Mobility**

Water solubility: 140 g/l (20 °C)
Will not adsorb on soil.

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects

None known.

Additional ecological information: Hazards for the aquatic environment are limited, as the product quickly decomposes into water and oxygen and does not bioaccumulate.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Product**

Dispose of as hazardous waste in compliance with local and national regulations. Can be disposed as waste water, when in compliance with local regulations. Dispose of wastes in an approved waste disposal facility. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
Offer rinsed packaging material to local recycling facilities.

SECTION 14: TRANSPORT INFORMATION**14.1 UN number**

3378

Land transport**ADR /RID:****Description of the goods:****14.2 UN proper shipping name**

SODIUM CARBONATE PEROXYHYDRATE

14.3 Class

5.1

14.4 Packaging group:

III

Risk code

50

ADR/RID-Labels:

5.1

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

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Sea transport

IMDG:

Description of the goods:

14.2UN proper shipping name UN3378, SODIUM CARBONATE PEROXYHYDRATE

14.3 Class: 5.1

14.4 Packaging group: III

IMDG-Labels: 5.1

14.5 Environmentally Hazardous:

Air transport

ICAO/IATA:

Description of the goods

14.2UN proper shipping name UN3378, Sodium carbonate peroxyhydrate

14.3 Class: 5.1

14.4 Packaging group: III

ICAO-Labels: 5.1

14.6 Special precautions for user

SECTION 15: REGULATORY INFORMATION

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

Water contaminating class : WGK 1 slightly water endangering
(Germany) WGK - identification number:
1364

Notification status

- :
- : All components of this product are included in the United States TSCA Chemical Inventory or are not required to be listed on the United States TSCA Chemical Inventory.
- : All components of this product are included in the Canada Domestic Substance List (DSL) or are not required to be listed on the Canada Domestic Substance List (DSL).
- : All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on the Australian Inventory of Chemical Substances (AICS).
- : All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

- inventory.
- : All components of this product are included in the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.
- : All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.
- : All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.
- : All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.
- : All components of this product are included in the New Zealand inventory (NZIoC) or are not required to be listed on the New Zealand inventory(NZIoC).
- : This product's Taiwan Toxic Chemical Substances Control Act Inventory status has NOT been determined.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under section 3.

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H318	Causes serious eye damage.

Text of R-phrases mentioned in Section 3

R 8	Contact with combustible material may cause fire.
R22	Harmful if swallowed.
R41	Risk of serious damage to eyes.

Training advice

Read the safety data sheet before using the product.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Sources of key data used to compile the Safety Data Sheet

Regulations, databases, literature, own tests.

Additions, Deletions, Revisions

Relevant changes have been marked with vertical lines.



SAFETY DATA SHEET

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

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Annex**Contents: Exposure scenario****1. Industrial Manufacturing (all)**

SU 3; SU8; ERC1; PROC1, PROC2, PROC4, PROC8b, PROC9;

2. Formulation

SU 3; SU 10; ERC2, ERC6b, ERC7; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9, PROC14; PC8, PC14, PC15, PC20, PC25, PC34, PC35, PC36, PC37, PC39;

3. Industrial cleaning

SU 3; SU1, SU5; ERC8a, ERC8b, ERC8e; PROC2, PROC4, PROC8a, PROC8b, PROC9, PROC15, PROC19; PC8, PC14, PC15, PC20, PC25, PC34, PC35, PC36, PC37, PC39;

4. Professional cleaning use

SU 22; SU1, SU5; ERC8a, ERC8b, ERC8e; PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC19; PC8, PC14, PC15, PC20, PC25, PC34, PC35, PC36, PC37, PC39;

5. Consumer use

SU 21; SU 21; ERC8a, ERC8b; PC8, PC35, PC36, PC37, PC39;

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

1. Short title of Exposure Scenario: Industrial Manufacturing (all)

Main User Groups	: SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites
Sector of use	: SU8: Manufacture of bulk, large scale chemicals (including petroleum products)
Process category	: PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
Environmental release category	: ERC1: Manufacture of substances

2.1 Contributing scenario controlling environmental exposure for: ERC1

Amount used

Regional annual tonnage	: 250000 t/y
Remarks	: total EU

Environment factors not influenced by risk management

Flow rate	: 2 000 m ³ /d
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Other given operational conditions affecting environmental exposure

Emission or Release Factor: Air	: 0 %
Emission or Release Factor: Soil	: 0 %

Technical conditions and measures / Organizational measures

Air	: Waste air has to be cleaned by passing through dust filters or wet scrubbers.
Water	: Standard waste water treatment plant. (Effectiveness: > 90 %)

Conditions and measures related to municipal sewage treatment plant

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

Type of Sewage Treatment Plant : Municipal sewage treatment plant
 Effectiveness (of a measure) : 99,3 %

Conditions and measures related to external treatment of waste for disposal

Disposal methods : Contaminated packaging material is decontaminated and deposited or incinerated., Solid waste substance is transferred into wastewater.

2.2 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC4, PROC8b, PROC9

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
 Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Local exhaust ventilation (Effectiveness: 90 %)
 Closed system

Organisational measures to prevent /limit releases, dispersion and exposure

Provide basic employee training to prevent / minimize exposure.

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

Respiratory protection (Effectiveness: 90 %)Wear suitable gloves (tested to EN374), coverall and eye protection.

3. Exposure estimation and reference to its source

Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value type	Level of Exposure	Risk characterisation ratio:
ERC1	EUSES	hydrogen peroxide	Freshwater	PEC	0,001mg/l	< 1

Workers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Value type	Level of Exposure	Risk characterisation ratio:
PROC1, PROC2, PROC4, PROC8b, PROC9	ECETOC TRA	Reasonable worst case long-term exposure	Worker - inhalative, long-term - local	2 mg/m ³	< 1
PROC1, PROC2, PROC4, PROC8b, PROC9	ECETOC TRA	Reasonable worst case long-term exposure	Worker - dermal, long-term - local	0,1 mg/cm ²	< 1

The assessment of potential environmental risks is based on hydrogen peroxide (>,<) which is the adverse agent released by the dissociation of sodium percarbonate in water. The calculated PECs of hydrogen peroxide representing the conditions at the manufacturing sites in the EU did not exceed the values given below., Risk from environmental exposure is driven by fresh water., When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1., When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels., For scaling see: <http://www.ecetoc.org/tra>, If scaling reveals a condition of unsafe use (i.e. RCRs>1), additional RMMs or a site-specific chemical safety assessment is required.

1. Short title of Exposure Scenario: Formulation

- Main User Groups : **SU 3:** Industrial uses: Uses of substances as such or in preparations at industrial sites
- Sector of use : **SU 10:** Formulation [mixing] of preparations and/ or re-packaging (excluding alloys)
- Product category : **PC8:** Biocidal products (e.g. Disinfectants, pest control)
PC14: Metal surface treatment products, including galvanic and electroplating products
PC15: Non-metal-surface treatment products
PC20: Products such as pH-regulators, flocculants, precipitants, neutralization agents
PC25: Metal working fluids
PC34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids
PC35: Washing and cleaning products (including solvent based products)
PC36: Water softeners
PC37: Water treatment chemicals
PC39: Cosmetics, personal care products
- Process category : **PROC1:** Use in closed process, no likelihood of exposure
PROC2: Use in closed, continuous process with occasional controlled exposure
PROC3: Use in closed batch process (synthesis or formulation)
PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact)
PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
PROC14: Production of preparations or articles by tableting, compression, extrusion, pelletisation
- Environmental release category : **ERC2:** Formulation of preparations

ERC6b: Industrial use of reactive processing aids
ERC7: Industrial use of substances in closed systems

2.1 Contributing scenario controlling environmental exposure for: ERC2, ERC6b, ERC7

Amount used

Annual amount per site : 15000 t/y

Environment factors not influenced by risk managementDilution Factor (River) : 10
Dilution Factor (Coastal Areas) : 10**Other given operational conditions affecting environmental exposure**Number of emission days per year : 300
Emission or Release Factor: Air : 0 %
Emission or Release Factor: Soil : 0 %
A wastewater flow : 2000 m³/d**Technical conditions and measures / Organizational measures**Air : Waste air has to be cleaned by passing through dust filters or wet scrubbers.
Water : Wastewater is treated in chemical/biological on-site or municipal wastewater treatment plants.
Remarks : Procedural and/or control technologies are required to minimise emissions and the resulting exposure during cleaning and maintenance procedures.**Conditions and measures related to municipal sewage treatment plant**Type of Sewage Treatment Plant : A municipal STP and/or on-site treatment is assumed.
Effectiveness (of a measure) : 99,3 %**Conditions and measures related to external treatment of waste for disposal**

Disposal methods : Contaminated packaging material is decontaminated and deposited or incinerated., Solid waste substance is transferred into wastewater.

2.2 Contributing scenario controlling worker exposure for: PROC1

Product characteristics

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

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Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palm of one hand (240 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.3 Contributing scenario controlling worker exposure for: PROC2

Product characteristics

Concentration of the Substance in Mixture/Article Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palms of both hands (480 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.4 Contributing scenario controlling worker exposure for: PROC3

Product characteristics

Concentration of the Substance in Mixture/Article Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palm of one hand (240 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.5 Contributing scenario controlling worker exposure for: PROC4

Product characteristics

Concentration of the Substance in Mixture/Article Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palms of both hands (480 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.6 Contributing scenario controlling worker exposure for: PROC5

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palms of both hands (480 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.7 Contributing scenario controlling worker exposure for: PROC8a

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Both hands (960 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.8 Contributing scenario controlling worker exposure for: PROC8b, PROC9

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palms of both hands (480 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.9 Contributing scenario controlling worker exposure for: PROC14

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palms of both hands (480 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

3. Exposure estimation and reference to its source
Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value type	Level of Exposure	Risk characterisation ratio:
ERC2, ERC6b, ERC7	EUSES	hydrogen peroxide	Freshwater	PEC	0,0031mg/l	< 1

Workers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Value type	Level of Exposure	Risk characterisation ratio:
PROC1	ECETOC TRA		Worker - inhalative, long-term - local	0,01 mg/m ³	< 1
PROC1	ECETOC TRA		Worker - dermal, long-term - local	0,34 mg/kg bw/day	< 1
PROC2	ECETOC TRA		Worker - inhalative, long-term - local	0,01 mg/m ³	< 1
PROC2	ECETOC TRA		Worker - dermal, long-term - local	1,37 mg/kg bw/day	< 1
PROC3	ECETOC TRA		Worker - inhalative, long-term - local	0,1 mg/m ³	< 1
PROC3	ECETOC TRA		Worker - dermal, long-term - local	0,34 mg/kg bw/day	< 1
PROC4	ECETOC TRA		Worker - inhalative, long-term - local	0,5 mg/m ³	< 1
PROC4	ECETOC TRA		Worker -	1 mg/cm ²	< 1

			dermal, long-term - local		
PROC5	ECETOC TRA		Worker - inhalative, long-term - local	0,5 mg/m ³	< 1
PROC5	ECETOC TRA		Worker - dermal, long-term - local	13,7 mg/kg bw/day	< 1
PROC8a	ECETOC TRA		Worker - inhalative, long-term - local	0,5 mg/m ³	< 1
PROC8a	ECETOC TRA		Worker - dermal, long-term - local	13,7 mg/kg bw/day	< 1
PROC8b, PROC9	ECETOC TRA		Worker - inhalative, long-term - local	0,1 mg/m ³	< 1
PROC8b, PROC9	ECETOC TRA		Worker - dermal, long-term - local	6,85 mg/kg bw/day	< 1
PROC14	ECETOC TRA		Worker - inhalative, long-term - local	0,1 mg/m ³	< 1
PROC14	ECETOC TRA		Worker - dermal, long-term - local	3,42 mg/kg bw/day	< 1

The assessment of potential environmental risks is based on hydrogen peroxide (>,<) which is the adverse agent released by the dissociation of sodium percarbonate in water. The calculated PECs of hydrogen peroxide representing the conditions at the manufacturing sites in the EU did not exceed the values given below. When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1. Risk from environmental exposure is driven by fresh water. When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels., For scaling see: <http://www.ecetoc.org/tra>, If scaling reveals a condition of unsafe use (i.e. RCRs>1), additional RMMs or a site-specific chemical safety assessment is required.

1. Short title of Exposure Scenario: Industrial cleaning

Main User Groups	: SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites
Sector of use	: SU1: Agriculture, forestry, fishery SU5: Manufacture of textiles, leather, fur
Product category	: PC8: Biocidal products (e.g. Disinfectants, pest control) PC14: Metal surface treatment products, including galvanic and electroplating products PC15: Non-metal-surface treatment products PC20: Products such as pH-regulators, flocculants, precipitants, neutralization agents PC25: Metal working fluids PC34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids PC35: Washing and cleaning products (including solvent based products) PC36: Water softeners PC37: Water treatment chemicals PC39: Cosmetics, personal care products
Process category	: PROC2: Use in closed, continuous process with occasional controlled exposure PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC15: Use as laboratory reagent PROC19: Hand-mixing with intimate contact and only PPE available
Environmental release category	: ERC8a: Wide dispersive indoor use of processing aids in open systems ERC8b: Wide dispersive indoor use of reactive substances in open systems ERC8e: Wide dispersive outdoor use of reactive substances in open systems

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

2.1 Contributing scenario controlling environmental exposure for: ERC8a, ERC8b, ERC8e

Amount used

Regional annual tonnage : 250000 t/y
Remarks : total EU

Environment factors not influenced by risk management

Dilution Factor (River) : 10
Dilution Factor (Coastal Areas) : 10

Other given operational conditions affecting environmental exposure

Number of emission days per year : 365
Emission or Release Factor: Air : 0 %
Emission or Release Factor: Soil : 0 %

Technical conditions and measures / Organizational measures

Water : Wastewater is treated in chemical/biological on-site or municipal wastewater treatment plants.

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant : A municipal STP and/or on-site treatment is assumed.
Effectiveness (of a measure) : 99,3 %

Conditions and measures related to external treatment of waste for disposal

Disposal methods : Contaminated packaging material is disposed of properly.

2.2 Contributing scenario controlling worker exposure for: PROC2

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palms of both hands (480 cm²)

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.3 Contributing scenario controlling worker exposure for: PROC4

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palms of both hands (480 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.4 Contributing scenario controlling worker exposure for: PROC8a

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

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Human factors not influenced by risk managementExposed skin area : Both hands (960 cm²)**Other operational conditions affecting workers exposure**

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.5 Contributing scenario controlling worker exposure for: PROC8b, PROC9

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk managementExposed skin area : Palms of both hands (480 cm²)**Other operational conditions affecting workers exposure**

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.6 Contributing scenario controlling worker exposure for: PROC15

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

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Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palm of one hand (240 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.7 Contributing scenario controlling worker exposure for: PROC19

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Both hands and forearms (1980 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

3. Exposure estimation and reference to its source

Environment

Contributing	Exposure	Specific	Compartment	Value type	Level of	Risk
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Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

Scenario	Assessment Method	conditions			Exposure	characterisation ratio:
ERC8a, ERC8b, ERC8e	EUSES	hydrogen peroxide	Fresh water	PEC	0,0004mg/l	< 1

Workers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Value type	Level of Exposure	Risk characterisation ratio:
PROC2	ECETOC TRA		Worker - inhalative, long-term - local	0,01 mg/m ³	< 1
PROC2	ECETOC TRA		Worker - dermal, long-term - local	1,37 mg/kg/day	< 1
PROC4	ECETOC TRA		Worker - inhalative, long-term - local	0,5 mg/m ³	< 1
PROC4	ECETOC TRA		Worker - dermal, long-term - local	6,85 mg/kg/day	< 1
PROC8a	ECETOC TRA		Worker - inhalative, long-term - local	0,5 mg/m ³	< 1
PROC8a	ECETOC TRA		Worker - dermal, long-term - local	13,7 mg/kg/day	< 1
PROC8b, PROC9	ECETOC TRA		Worker - inhalative, long-term - local	0,1 mg/m ³	< 1
PROC8b, PROC9	ECETOC TRA		Worker - dermal, long-term - local	6,85 mg/kg/day	< 1
PROC15	ECETOC TRA		Worker - inhalative, long-term - local	0,1 mg/m ³	< 1
PROC15	ECETOC TRA		Worker - dermal, long-term - local	0,34 mg/kg/day	< 1
PROC19	ECETOC TRA		Worker - inhalative, long-term - local	0,5 mg/m ³	< 1
PROC19	ECETOC TRA		Worker - dermal, long-	141 mg/kg/day	< 1

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

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			term - local		
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The assessment of potential environmental risks is based on hydrogen peroxide<(,<)> which is the adverse agent released by the dissociation of sodium percarbonate in water. The calculated PECs of hydrogen peroxide representing the conditions at the manufacturing sites in the EU did not exceed the values given below., Risk from environmental exposure is driven by fresh water., When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1., When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels., For scaling see: <http://www.ecetoc.org/tra>, If scaling reveals a condition of unsafe use (i.e. RCRs>1), additional RMMs or a site-specific chemical safety assessment is required.

1. Short title of Exposure Scenario: Professional cleaning use

Main User Groups	: SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Sector of use	: SU1: Agriculture, forestry, fishery SU5: Manufacture of textiles, leather, fur
Product category	: PC8: Biocidal products (e.g. Disinfectants, pest control) PC14: Metal surface treatment products, including galvanic and electroplating products PC15: Non-metal-surface treatment products PC20: Products such as pH-regulators, flocculants, precipitants, neutralization agents PC25: Metal working fluids PC34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids PC35: Washing and cleaning products (including solvent based products) PC36: Water softeners PC37: Water treatment chemicals PC39: Cosmetics, personal care products
Process category	: PROC8a: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10: Roller application or brushing PROC11: Non industrial spraying PROC13: Treatment of articles by dipping and pouring PROC19: Hand-mixing with intimate contact and only PPE available
Environmental release category	: ERC8a: Wide dispersive indoor use of processing aids in open systems ERC8b: Wide dispersive indoor use of reactive substances in open systems ERC8e: Wide dispersive outdoor use of reactive substances in open systems

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

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2.1 Contributing scenario controlling environmental exposure for: ERC8a, ERC8b, ERC8e

Amount used

Regional annual tonnage : 250000 t/y
Remarks : total EU

Environment factors not influenced by risk management

Dilution Factor (River) : 10
Dilution Factor (Coastal Areas) : 10

Other given operational conditions affecting environmental exposure

Number of emission days per year : 365
Emission or Release Factor: Air : 0 %
Emission or Release Factor: Soil : 0 %

Technical conditions and measures / Organizational measures

Water : Wastewater is treated in chemical/biological on-site or municipal wastewater treatment plants.

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant : A municipal STP and/or on-site treatment is assumed.
Effectiveness (of a measure) : 99,3 %

Conditions and measures related to external treatment of waste for disposal

Disposal methods : Contaminated packaging material is disposed of properly.

2.2 Contributing scenario controlling worker exposure for: PROC8a

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Both hands (960 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

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Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.3 Contributing scenario controlling worker exposure for: PROC8b, PROC9

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Solid, low dustiness

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Palms of both hands (480 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.4 Contributing scenario controlling worker exposure for: PROC10

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.
Physical Form (at time of use) : Liquid, vapour pressure < 0.5 kPa

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Both hands (960 cm²)

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.5 Contributing scenario controlling worker exposure for: PROC11

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Physical Form (at time of use) : Liquid, vapour pressure < 0.5 kPa

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Two hands and forearms (1500 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.6 Contributing scenario controlling worker exposure for: PROC13

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.
Physical Form (at time of use) : Liquid, vapour pressure < 0.5 kPa

Frequency and duration of use

Duration of the activity : > 4 h

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

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Human factors not influenced by risk management

Exposed skin area : Palms of both hands (480 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

2.7 Contributing scenario controlling worker exposure for: PROC19

Product characteristics

Concentration of the Substance in Mixture/Article : Covers the percentage of the substance in the product up to 25 %.
 Physical Form (at time of use) : Liquid, vapour pressure < 0.5 kPa

Frequency and duration of use

Duration of the activity : > 4 h

Human factors not influenced by risk management

Exposed skin area : Both hands and forearms (1980 cm²)

Other operational conditions affecting workers exposure

Outdoor / Indoor : Indoor

Technical conditions and measures

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour)

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

Use respiratory protection if necessary. Wear suitable gloves (tested to EN374), coverall and eye protection.

3. Exposure estimation and reference to its source

Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value type	Level of Exposure	Risk characterisation ratio:

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

Revision Date: 14.03.2014

Previous date: 05.11.2013

Print Date:11.01.2016

ERC8a, ERC8b, ERC8e	EUSES	hydrogen peroxide	Fresh water	PEC	0,0004mg/l	< 1
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Workers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Value type	Level of Exposure	Risk characterisation ratio:
PROC8a	ECETOC TRA		Worker - inhalative, long-term - local	0,5 mg/m ³	< 1
PROC8a	ECETOC TRA		Worker - dermal, long-term - local	13,7 mg/kg/day	< 1
PROC8b, PROC9	ECETOC TRA		Worker - inhalative, long-term - local	0,5 mg/m ³	< 1
PROC8b, PROC9	ECETOC TRA		Worker - dermal, long-term - local	6,85 mg/kg/day	< 1
PROC10	ECETOC TRA		Worker - inhalative, long-term - local	1,24 mg/m ³	< 1
PROC10	ECETOC TRA		Worker - dermal, long-term - local	27,4 mg/kg/day	< 1
PROC11	ECETOC TRA		Worker - inhalative, long-term - local	1,35 mg/m ³	< 1
PROC11	ECETOC TRA		Worker - dermal, long-term - local	107 mg/kg/day	< 1
PROC13	ECETOC TRA		Worker - inhalative, long-term - local	1,34 mg/m ³	< 1
PROC13	ECETOC TRA		Worker - dermal, long-term - local	13,7 mg/kg/day	< 1
PROC19	ECETOC TRA		Worker - inhalative, long-term - local	1,24 mg/m ³	< 1
PROC19	ECETOC TRA		Worker - dermal, long-term - local	141 mg/kg/day	< 1

The assessment of potential environmental risks is based on hydrogen peroxide<(>,<)> which is the adverse agent released by the dissociation of sodium percarbonate in water. The calculated PECs of hydrogen peroxide representing the conditions at the manufacturing sites in the EU did not exceed the values given below., Risk from environmental exposure is driven by fresh water., When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1., When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels., For scaling see: <http://www.ecetoc.org/tra>, If scaling reveals a condition of unsafe use (i.e. RCRs>1), additional RMMs or a site-specific chemical safety assessment is required.

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

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1. Short title of Exposure Scenario: Consumer use

Main User Groups	: SU 21: Consumer uses: Private households (= general public = consumers)
Sector of use	: SU 21: Consumer uses: Private households (= general public = consumers)
Product category	: PC8: Biocidal products (e.g. Disinfectants, pest control) PC35: Washing and cleaning products (including solvent based products) PC36: Water softeners PC37: Water treatment chemicals PC39: Cosmetics, personal care products
Environmental release category	: ERC8a: Wide dispersive indoor use of processing aids in open systems ERC8b: Wide dispersive indoor use of reactive substances in open systems

2.2 Contributing scenario controlling consumer exposure for: PC8, PC35, PC36, PC37, PC39

Product characteristics

Concentration of the Substance in Mixture/Article	Covers the percentage of the substance in the product up to 100 % (unless stated differently)., Maximum in consumer products.
Physical Form (at time of use)	: Solid, low dustiness

Amount used

Amount used per event	: 0,29 kg
Amount used per event	: 0,07 kg
Remarks	: Laundry detergents

Frequency and duration of use

Application duration	: 1 min
Frequency of use	: 3 times a day
Remarks	: Laundry detergents, transfer
Application duration	: 20 min
Remarks	: Laundry detergents, use phase
Application duration	: 10 min
Frequency of use	: 1 times a day
Remarks	: use phase

Kemira Ecox-C

Ref. 1.3/REG_EU/EN

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Human factors not influenced by risk management

Body weight : 60 kg

Conditions and measures related to protection of consumer (e.g. behavioural advice, personal protection and hygiene)

Consumer Measures : Keep out of the reach of children.

Additional good practice advice beyond the REACH Chemical Safety Assessment

Additional good practice advice : The use of eye protection is recommended to avoid contact of the eyes with the undiluted product.

3. Exposure estimation and reference to its source

Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value type	Level of Exposure	Risk characterisation ratio:
ERC8a, ERC8b	EUSES	hydrogen peroxide	Fresh water	PEC	0,0004mg/l	< 1

Consumers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Value type	Level of Exposure	RCR
PC8 PC35 PC36 PC37 PC39		Calculated using generic algorithms of EU TGD.	Dermal exposure	0,75 mg/cm ²	< 1

Worst case assumption, The assessment of potential environmental risks is based on hydrogen peroxide (>,<) which is the adverse agent released by the dissociation of sodium percarbonate in water. The calculated PECs of hydrogen peroxide representing the conditions at the manufacturing sites in the EU did not exceed the values given below., Risk from environmental exposure is driven by fresh water., When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1., When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1.

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

All relevant information on the safe consumer use has been outlined in the section 2., Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels., If scaling reveals a condition of unsafe use (i.e. RCRs>1), additional RMMs or a site-specific chemical safety assessment is required.

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