1 Identification of Substance/Preparation and Company Undertaking

1.1 Product identifier

Trade name	Substance name	Index Number	CAS number	Registration number
Biox 500	**Mixture**	N/A	N/A	N/A

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture	This product may be used as a biocidal active substance in accordance with Directive 98/8/EC, if the appropriate local authorisation has been obtained. Chemical product for the water treatment. Chlorine dioxide (CAS-No 10049-04-4) generated in situ from sodium chlorite by acidic activation, by oxidation or electrochemically. Manufacture Distribution Water treatment chemical
Exposure scenarios	There are no exposure scenarios currently available or required specifically for the product. Only those for the main component (31% sodium chlorite) that are applicable to applications the product is intended for are in included in Annex 1 of this data sheet.
Uses advised against	At this time we do not yet have information on advised against uses

1.3 Details of the supplier of the safety data sheet

Company Name and Address	**Telephone**	01573 226901
Scotmas Limited	**Fax**	01573 226026
Spylaw Rd, Kelso,		
TD5 8DL, Scotland		

1.4 Emergency telephone number

Emergency telephone number	01573 226901 Not 24 hours

2 HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification	**Hazard statements**
Physical and chemical hazards Not classified	EUH 032 Contact with acid liberates very toxic gas
Human health Eye Damage Category 1	H318 Causes serious eye damage.
Potential environmental effects none	none See section 9 for physicochemical information.

Most important adverse effects

Human health Corrosive	Causes serious eye damage Contact with acid liberates very toxic gas See section 11 for toxicological information.
Physical and chemical hazards	Contact with acid liberates very toxic gas See section 9 for physicochemical information.
Potential environmental effects	Toxic to aquatic life See section 12 for environmental information.

2.2 Label elements		
Labelling according to Regulation (EC) No 1272/2008		
Hazard symbols		
Signal word	Danger	
Hazard statement(s)	H318	Causes serious eye damage.
Precautionary statement		
Prevention	P264 P270 P280	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
Response	P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON Centre or doctor/physician
Disposal	P501	Dispose of contents to an approved waste disposal plant
Other labelling information EUH 032 Contact with acids liberates very toxic gas.		
Further information	N/A	
Other labelling information		
	none	
2.3. Other hazards		
	For Results of PBT and vPvB assessment see section 12.5	

3 Compositional Information On Ingredients

3.1. Substances Not applicable

3.2. Mixtures

Chemical Nature		**Aqueous solution**	
Hazardous components		**Amount [%]**	**Classification (REGULATION (EC) No 1272/2008)** **Hazard class / Hazard category**
Sodium chlorite		6.7%	Oxidizer solid, 1 Acute Toxic oral. 3 Acute Toxic dermal. 2 Skin Corrosive. 1B STOT 1 Resp. Exp 2 Aquatic Tox Acute 1
Index No	N/A		
Cas No.	7758-19-2		
Ec No.	231-836-6		
Registration No	01-2119529240-51		

For the full text of the H-Statements mentioned in this Section, see Section 16.

4 First Aid

4.1. Description of first aid measures

General advice	Take off all contaminated clothing immediately. Never give anything by mouth to an unconscious person. When symptoms persist or in all cases of doubt seek medical advice.
Inhalation of Vapour	Move to fresh air. If not breathing, give artificial respiration. Call a poison control centre or doctor for treatment advice.
Eye contact	Rinse immediately with plenty of water and seek medical advice.
Skin contact	Take off contaminated clothing and shoes immediately. Call a poison control centre or doctor for treatment advice. Wash off immediately with soap and plenty of water.
Ingestion	Call a poison control centre or doctor for treatment advice. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Probable mucosal damage may contraindicate the use of gastric lavage. See Section 11 for more detailed information on health effects and symptoms
Effects	See Section 11 for more detailed information on health effects and symptoms

4.3. Indication of any immediate medical attention and special treatment needed

Treatment	Treat symptomatically. No further information available.

5 FIRE FIGHTING MEASURES	
5.1. Extinguishing media	
Suitable extinguishing media	The product itself does not burn., Use extinguishing measures that are appropriate to local circumstances and the surrounding environment., Foam, Sand, Dry powder, Water spray
Unsuitable extinguishing media	Carbon dioxide (CO2)
5.2. Special hazards arising from the substance or mixture	
Specific hazards during fire fighting	Drying of this product on clothing or combustible materials may cause fire. Hazardous decomposition products formed under fire conditions. acrid fumes Sodium oxides (see also section 10)
5.3. Advice for fire-fighters	
Special protective equipment for fire-fighters	In the event of fire, wear self-contained breathing apparatus. Wear personal protective equipment.
Further information	Evacuate personnel to safe areas. Evacuate personnel and keep upwind of fire. Keep containers and surroundings cool with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6 Accidental Release

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Wear personal protective equipment. Avoid contact with the skin and the eyes.

6.2. Environmental precautions

Environmental precautions	Prevent material from entering sewers, waterways, or low areas. Do not allow to dry. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up	Dilute with water. Pick up and transfer to properly labelled containers. After cleaning, flush away traces with water. Or where applicable absorb with liquid-binding non-combustible material (sand, diatomite, acid binders, and universal binders). Keep in suitable, closed containers for disposal. Flush away residuals with plenty of water.
Further information	Treat recovered material as described in the section 13 "Disposal considerations".

6.4. Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on personal protective equipment.
See Section 13 for waste treatment information.

7 Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Avoid contact with skin, eyes and clothing. Avoid formation of aerosol. Avoid inhalation of vapour or mist. Wear personal protective equipment. Use only in well-ventilated areas. Keep container tightly closed.
Hygiene measures	Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Provide adequate ventilation. Avoid contact with the skin and the eyes.

7.2. Conditions for safe storage, including any incompatibilities	
Requirements for storage areas and containers	Store in original container. Keep tightly closed in a dry, cool and well-ventilated place. Avoid heat, freezing and ultraviolet light. Do not allow to dry.
Advice on protection against fire and explosion	Avoid letting the product become dry..
Further information on storage conditions	Keep container tightly closed. Keep in a well-ventilated place. Store in cool place.
Advice on common storage	Keep away from: Strong acids and oxidizing agents Keep away from food, drink and animal feeding stuffs.
7.3. Specific end use(s)	
Specific use(s)	No information available.

8 Exposure Controls / Personal Protection

8.1. Control parameters

Component: Sodium chlorite CAS-No. 7758-19-2

Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL)	
Type of Application (Use): Workers Exposure routes: Skin contact Health Effect: Acute - systemic effects	0.58 mg/kg body weight (bw) /day
Type of Application (Use): Workers Exposure routes: Skin contact Health Effect: Long-term - systemic effects	0.58 mg/kg body weight (bw) /day
Type of Application (Use): Workers Exposure routes: Inhalation Health Effect: Acute - systemic effects	0.41 mg/m3
Derived No Effect Level (DNEL)/Derived Minimal Effect Level (DMEL) cont.	
Type of Application (Use): Workers Exposure routes: Inhalation Health Effect: Long-term - systemic effects	0.41 mg/m3
Type of Application (Use): Consumers Exposure routes: Skin contact Health Effect: Acute - systemic effects	0.29 mg/kg body weight (bw) /day
Type of Application (Use): Consumers Exposure routes: Inhalation Health Effect: Acute - systemic effects	0.1 mg/m3
Type of Application (Use): Consumers Exposure routes: Skin contact	0.29 mg/kg body weight (bw) /day

Health Effect: Long-term - systemic effects	
Type of Application (Use): Consumers Exposure routes: Inhalation Health Effect: Long-term - systemic effects	0.1 mg/m3
Type of Application (Use): Consumers Exposure routes: Ingestion Health Effect: Long-term - systemic effects	0.029 mg/kg body weight (bw) /day
Predicted No Effect Concentration (PNEC)	
Fresh water	0.00065 mg/l
Marine water	0.000065g/l
Intermittent releases	0.000006 µg/l
Sewage treatment plant (STP)	1 mg/l
Other Occupational Exposure Limit Values	
EU ELV, Short Term Exposure Limit (STEL):	none
EH40 WEL, Time Weighted Average (TWA): Gas and aerosol mists.	none
EH40 WEL, Short Term Exposure Limit (STEL): Gas and aerosol mists.	none
ELV (IE), Time Weighted Average (TWA):	none
ELV (IE), Short Term Exposure Limit (STEL):	none

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

Refer to protective measures listed in sections 7 and 8.

Personal protective equipment

Advice	Avoid exposure - obtain special instructions before use.

Respiratory protection

Advice	Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Advice	Impervious gloves : Material: Neoprene gloves : Material: Polyvinyl chloride - PVC
Eye protection	
Advice	Wear coverall chemical splash goggles. Additionally wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.
Skin and body protection	
Advice	Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots.
Hygiene measures	
Advice	Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday.
Environmental exposure controls	
General Advice	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities.

9 PHYSICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Form	Liquid	Relative vapour density	No data available
Colour	Colourless slight yellow colour	Relative Density	1.04g/³cm(20°C)
Odour	Slight chlorine	Water solubility	Completely miscible
pH	9.0-9.5	Partition coefficient in n-octanol/water	No data available

9.1. Information on basic physical and chemical properties Continued

Flash point	Not applicable	Auto ignition temperature	Not applicable
Evaporation rate	No data available	Thermal decomposition	Stable under normal conditions. Decomposes on heating.
Flammability (solid gas)	Not applicable	Viscosity dynamic	No data available
Upper explosion limit	Not applicable	Explosivity	Product is not explosive

Lower explosion limit	Not applicable	Oxidising properties	The mixture has oxidizing properties
Vapour pressure	ca. 20.66hPa at 20 °C (25% sodium chlorite)		

9.2 Other information

none

10 STABILITY / REACTIVITY

10.1 Reactivity

Advice	Stable under recommended storage conditions. Decomposes on heating.

10.2 Chemical stability

Advice	Stable under normal conditions. Decomposes on heating.

10.3 Possibility of hazardous reaction

Hazardous reactions	Contact with acids, organic materials, reducing agents and oxidizing agents will release toxic gases of chlorine and/or chlorine dioxide.
Hazardous decomposition products	Chlorine Chlorine dioxide...% Under fire conditions: Oxygen acrid fumes Sodium oxides

10.4 Conditions to avoid

Conditions to avoid	Stable under normal conditions. Decomposes on heating.
Thermal decomposition	Decomposes on heating.

10.5 Incompatible materials

Materials to avoid	Strong acids and oxidizing agents Reducing agents Organic materials chlorinated compounds

11 TOXICOLOGICAL INFORMATION	
11.1 Information on toxicological effects	
Information on Product **Biox 500**	
Acute toxicity	
Oral	Please find this information in the listing of the component/components below in this MSDS
Inhalation	No data available
Dermal	Please find this information in the listing of the component/components below in this MSDS
Irritation	
Skin Result	Please find this information in the listing of the component/components below in this MSDS
Eyes Result	Please find this information in the listing of the component/components below in this MSDS
Sensitisation	
Result	Please find this information in the listing of the component/components below in this MSDS
CMR effects	
Carcinogenicity	Please find this information in the listing of the component/components below in this MSDS
Mutagenicity	Please find this information in the listing of the component/components below in this MSDS
Teratogenicity	Please find this information in the listing of the component/components below in this MSDS
Reproductive toxicity	Please find this information in the listing of the component/components below in this MSDS
Specific target organ toxicity	
Single exposure	
Remark	The substance or mixture is not classified as a specific target organ toxicant single exposure
Repeated exposure	
Remark	The substance or mixture is not classified as a specific target organ toxicant repeated exposure
Other toxic properties	
Aspiration risk	
Remark	No aspiration toxicity classification

Information on components **Sodium chlorite CAS-No. 7758-19-2**	
Acute toxicity	
Acute oral	LD 50 284mg/kg (rat)
Inhalation	No data
Dermal	LD 50 134 mg/kg (rabbit)
Irritation	
Skin Result	 Corrosive effects (rabbit)
Eyes Result	 Corrosive effects (rabbit) Risk to serious damage to eyes
Sensitisation	
Result	Not sensitising (guinea pig maximisation test)
CMR effects	
Carcinogenicity	Did not show carcinogenic effects in animal experiments
Mutagenicity	Did not show mutagenic effects
Teratogenicity	Did not show any developmental effects
Reproductive toxicity	Animal testing did not show any effects on fertility
Specific target organ toxicity	
Single exposure	
No data	
Repeated exposure	
Remark	Oral Rat Exposure time: 1 y Gastrointestinal effects, Abnormal decrease in number of red blood cells, Abnormal decrease in red –blood -cell haemoglobin (hemoglobinemia) Oral Monkey altered hematology, altered blood chemistry
Other toxic properties	
Aspiration risk	
Remark	No aspiration toxicity classification
Human experience	
Excessive exposures may affect human health, as follows:	

Inhalation
Respiratory system: Irritation, Cough
Skin contact
Skin: Discomfort, Irritation, Itching, Redness
Eye contact
Eyes: Excessive lachrymation, Damage
Ingestion
Gastrointestinal tract: Nausea, Pain, Weakness, Vomiting

12 Ecological Information

12.1 Toxicity

Information on components	Sodium chlorite CAS-No. 7758-19-2
	Acute toxicity
Fish	LC50 / 96 h / Cyprinodon variegatus (sheepshead minnow): 105 mg/l
Toxicity to Daphnia and other invertebrates	EC50 / 48 h / Daphnia magna (Water flea): < 1.0 mg/l LC50 / 96 h / Americamysis bahia (mysid shrimp): 0.65 mg/l
Algae	ErC50 / 96 h / Scenedesmus capricornutum (fresh water algae): 1 mg/l

12.2 Persistance and Degradability

Information on components	Sodium chlorite CAS-No. 7758-19-2
	Biodegradability
Result	According to the results of tests of biodegradability this product is not readily biodegradable.

12.3 Bioaccumulation Potential

Information on components	Sodium chlorite CAS-No. 7758-19-2
	Bioaccumulation
Result	Bioaccumulation is unlikely.

12.4 Mobility in soil

Information on components	Sodium chlorite CAS-No. 7758-19-2
	Mobility
Soil	No data available

12.5 Results of PBT and vPvB assessment	
Information on components	**Sodium chlorite CAS-No. 7758-19-2**
Results of PBT and vPvB assessment	
Result	This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). / This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).
12.6 Other adverse effects	
Additional ecological Information	
No data is available on the product itself.	
Result	Do not flush into surface water or sanitary sewers Avoid subsoil penetration

13 Disposal Consideration

13.1 Waste treatment methods	
Product	Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services.
Contaminated packaging	Empty remaining contents thoroughly. . They can be recycled after thorough cleaning. Packaging that cannot be cleaned are to be disposed of in the same manner as the product. Dispose of in accordance with local regulations.
European Waste Catalogue Number	No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14 Transport Information

14.1 UN Number	
None	
14.2 Proper shipping name	
ADR	None
RID	None
IMDG	None
IATA	None
14.3 Transport hazard class(es)	
ADR (Labels, Classification code, Hazard Identification No.,	None

Tunnel restriction code)	
RID (Labels, Classification code, Hazard Identification No.)	None
IMDG (Labels EmS)	None
IATA	None
14.4 Packing Group	
ADR	None
RID	None
IMDG	None
IATA	None
14.5 Environmental Hazards	
ADR Labeling according to 5.2.1.8	None
RID Labeling according to 5.2.1.8	None
IMDG Labeling according to 5.2.1.6.3	None
IMDG Classification as environmentally hazardous according to 2.9.3 as	None
IATA	None
14.6 Special precaution for user	
Not applicable	
14.7 Transport in Bulk according to annex II/MARPOL 73/78 and IBC code	
IMDG	Not applicable

15 Regulatory Information

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

none

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for active component sodium chlorite.

16 Other Information

Issue information

First issued 01/09/1999 Authorised By A Cameron	Last revised 27/11/2017 Issue 9 Authorised By K. Ferguson

Significant changes at this revision

Environmental hazard for sodium chlorite it ingredient section 3 corrected section should be acute cat 1 not chronic cat 1
Harmful if swallowed classification removed as not applicable at this concentration

Obsolete DPD reference removed
Full text of H- phrases for ingredients in section 2 and 3
H271: May cause fire or explosion; strong oxidiser. H301: Toxic if swallowed. H310: Fatal in contact with skin. H314: Causes severe skin burns and eye damage. H373: May cause damage to organs through prolonged or repeated exposure H400: Very toxic to aquatic life EUH032: Contact with acids liberates very toxic gas. EUH071: Corrosive to the respiratory tract.

EU Directives	Dangerous preparations directive (67/548/EEC) (1999/45/EC) Safety Data sheets directive (2001/58/EC) Biocides directive REACH directive(2004/58/EC) CLP regulations (2008/1272/EC)

Since the users working conditions are not known by us, the information on this safety data sheets is based on our current level of knowledge and on national and community regulations
The product must not be used for any purpose other than those specified in heading 1 without first obtaining written handling instructions
It is at all times the responsibility of the user to take all necessary measures to comply with legal requirement and local regulations.

The information given on this data sheet must be regarded as relating to the safety requirements relating to our products and not a guarantee of its properties

Observe all National, Federal and Local laws / Bylaws with regard to the use of this product. Always check with relevant regulatory authorities before use

Disclaimer

Information on this form is furnished in compliance with current legislation. It is the responsibility of the recipient to pass on this information to relevant departments/persons involved. Scotmas Limited assumes no responsibility for injury or death resulting from the use/misuse of this product by the recipient and/or third persons, however caused. The user, bailee and their respective employees and agents assume all such risks if reasonable safety procedures are not adhered to.

Annex 1 - Exposure scenarios

The exposure scenario provides specific information on how hazardous substances (as such or in a mixture) are to be managed and controlled. It considers specific conditions of use, in order to ensure that a use should be safe to humans and the environment. Identified risk management measures are to be implemented unless the downstream user is able to ensure safe use in a diverging way.

There are no exposure scenarios currently available or required specifically for the product. Only those for the main component (31% sodium chlorite) that are applicable to applications the product is intended for are in included in with this data sheet.

These are:

ES2 - Industrial use, Water treatment chemical
ES7 - Professional use, Washing and cleaning products (including solvent based products), Indoor
ES8 - Professional use, Washing and cleaning products (including solvent based products), Outdoor
ES11 - Industrial use, Oxidizing agent
ES14 - Industrial use, Formulation

All Exposure scenario for sodium chlorite including those not applicable for the intended use of this product are listed below

ES1 - Industrial use, Manufacture, Distribution
ES2 - Industrial use, Water treatment chemical
ES3 - Industrial use, Paper and board products - Bleaching agents, stabilizers for bleaching bath
ES4 - Industrial use, Laboratory activities
ES5 - Industrial use, Textile products (incl. nonwoven fabric processing) - Bleaching agents, discharging agents
ES6 - Professional use, Textile products (incl. nonwoven fabric processing) - Bleaching agents, discharging agents
ES7 - Professional use, Washing and cleaning products (including solvent based products), Indoor
ES8 - Professional use, Washing and cleaning products (including solvent based products), Outdoor
ES9 - Consumer use, Washing and cleaning products (including solvent based products), Indoor
ES10 - Consumer use, Washing and cleaning products (including solvent based products), Outdoor
ES11 - Industrial use, Oxidizing agent

ES14 - Industrial use, Formulation
Exposure scenario 2:

1. Short title of Exposure Scenario: Industrial use, Water treatment chemical
Main User Groups: **SU 3:** Industrial uses: Uses of substances as such or in preparations at industrial sites
Sector of use: **SU23:** Electricity, steam, gas, water supply and sewage treatment
Product category: **PC37:** Water treatment chemicals

CS1: Industrial use of substances in closed systems (ERC7) - Water treatment Chemicals (PC37) Industrial use, Water treatment chemical

CS2: Use in closed, continuous process with occasional controlled exposure (PROC2) Industrial use, Water treatment chemical

2. Conditions of use affecting exposure
2.1 Control of environmental exposure for:

CS1 - Industrial use of substance Water treatment chemicals (PC37) Industrial use, Water treatment chemical

Used CHESAR model.
Product characteristics
Not biodegradable.
Amount used

Annual site tonnage (tonnes/year)	: 8,148 ton(s)/year
Daily amount per site	: 27,160 kg/day

Frequency and duration of use

Continuous use/release	: 300 days/year

Other given operational conditions affecting environmental exposure

Remarks	: Sewage treatment plant used
Emission or Release Factor:	
Air	: 0 %
Emission or Release Factor:	
Water	: 0 %
Emission or Release Factor:	
Soil	: 0 %

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant : Municipal sewage treatment plant
Assumed domestic sewage treatment plant flow : 2,000 m3/d
Percentage removed from waste water : 0 %
Remarks: Receiving surface water flow is 18000 m3/d.

Conditions and measures related to external treatment of waste
Remarks: This substance is consumed during use and no waste of the substance is generated.

1.2 Control of worker exposure for: CS2 - Use in closed, continuous process with occasional controlled exposure (PROC2) Industrial use, Water treatment chemical

Used CHESAR model.

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
Remarks	: Vapour pressure < 0.01 Pa

Amount used - Frequency and duration of use

Amount per Use	: Not required for TRA worker assessments.
Frequency of use	: Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure
Exposed skin area : Two hands face only
Outdoor / Indoor : Indoor use

Technical and organisational conditions and measures
Local exhaust ventilation (Effectiveness: 90 %)
Ensure material transfers are under containment or extract ventilation.
Ensure operatives are trained to minimise exposures. Supervision in place to check that the Risk Management
Measures in place are being used correctly and operational conditions followed.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear a respirator conforming to EN140 with Type A/P2 filter or better. (Effectiveness: 90 %)
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. (Effectiveness: 95%)
For further information see Section 8 of the safety data sheet.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Avoid manual contact with contaminated tools and objects. Assumes a good basic standard of occupational hygiene is implemented. Segregate the activity away from other operations. Clean equipment and the work area every day. Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation and reference to its source
Environment
CS1 - Industrial use of substances in closed systems (ERC7) - Water treatment chemicals (PC37) Industrial use, Water treatment chemical
Compartment: Fresh water Risk characterization ratio: 0.01
Method: Used CHESAR model.
Compartment: Marine water Risk characterization ratio: 0.009
Method: Used CHESAR model.
Compartment: Sewage treatment plants Risk characterization ratio: 0
Method: Used CHESAR model.
Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily inhalation).
Risk characterization ratio: < 0.000001
Method: Used CHESAR model.
Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily ingestion).
Risk characterization ratio: 0.000008
Method: Used CHESAR model.
Workers
CS2 - Use in closed, continuous process with occasional controlled exposure (PROC2) Industrial use, Water treatment chemical

Value type: Worker - inhalation - acute, systemic
Risk characterization ratio: 0.02
Method: Used CHESAR model.
Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.01
Method: Used CHESAR model.
Value type: Worker - dermal, long-term – systemic
Risk characterization ratio: 0.012
Method: Used CHESAR model.
Value type: Worker - total - long-term, systemic
Risk characterization ratio: 0.022
Method: Used CHESAR model.

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

For further information, please contact enquiries@scotmas.co.uk. The information within this CS is relevant for all CS within this chapter of the Exposure Scenario

Exposure scenario 7

1. Short title of Exposure Scenario: Professional use, Washing and cleaning products (including solvent based products), Indoor

Main User Groups
SU 22: Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Sector of use
SU 22: Public domain (administration, education, entertainment, services, craftsmen)
Product category: **PC35:** Washing and cleaning products (including solvent based products)

CS1: Wide dispersive indoor use of reactive substances in open systems (ERC8b) - Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC35_2) Professional use, Washing and cleaning products (Industrial use) - Inorganic alkalis, organic alkalis, inorganic acids, organic acids, bleaching agents

CS2 : Roller application or brushing (PROC10) - Hand-mixing with intimate contact and only PPE available (PROC19) Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC35_2) Professional use, Washing and cleaning products (Industrial use) - Inorganic alkalis, organic alkalis, inorganic acids, organic acids, bleaching agents

2. Conditions of use affecting exposure

2.1 Control of environmental exposure for: CS1 - Wide dispersive indoor use of reactive substances in open systems (ERC8b) - Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC35_2) Professional use, Washing and cleaning products (Industrial use) - Inorganic alkalis, organic alkalis, inorganic acids, organic acids, bleaching agents

Used CHESAR model.

Product characteristics	Not readily biodegradable.
Amount used	Daily amount for wide disperse uses: 0.008 kg

Other given operational conditions affecting environmental exposure
Dispersive use

Number of emission:		365 days per year
Emission or Release Factor:	Air	0.1%
Emission or Release Factor:	Water	2.0 %
Emission or Release Factor:	Soil	0.0 %

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant:
Municipal sewage treatment plant
Assumed domestic sewage treatment plant flow : 2,000 m3/d
Percentage removed from waste water : 12.7 %
Remarks: Receiving surface water flow is 18000 m3/d.

2.2 Control of worker exposure for: CS2 - Roller application or brushing (PROC10) - Hand-mixing with intimate contact and only PPE available (PROC19) Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC35_2) Professional use,
Washing and cleaning products (Industrial use) - Inorganic alkalis, organic alkalis, inorganic acids, organic acids, bleaching agents

Used CHESAR model.

Product characteristics
Concentration of the Substance in Mixture/Article
: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Amount used - Frequency and duration of use
Amount per use: Not required for TRA worker assessments.
Frequency of use: Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure
Exposed skin area: Two hands only
Outdoor / Indoor: Indoor use
Remarks: Assumes activities are at ambient temperature (unless stated differently).

Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. (Effectiveness: 90 %)
For further information see Section 8 of the safety data sheet.

3. Exposure estimation and reference to its source
Environment

CS1 - Wide dispersive indoor use of reactive substances in open systems (ERC8b) - Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)
(PC35_2) Professional use, Washing and cleaning products (Industrial use) - Inorganic alkalis, organic alkalis, inorganic acids, organic acids, bleaching agents

Compartment: Fresh water Risk characterization ratio: 0.012
Method: Used CHESAR model.
Compartment: Marine water Risk characterization ratio: 0.011
Method: Used CHESAR model.
Compartment: Sewage treatment plants Risk characterization ratio: 0.000010
Method: Used CHESAR model.
Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily inhalation).
Risk characterization ratio: < 0.000001
Method: Used CHESAR model.
Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily ingestion).
Risk characterization ratio: 0.000009
Method: Used CHESAR model.

Workers
CS2 - Roller application or brushing (PROC10) - Hand-mixing with intimate contact and only PPE available(PROC19) Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) (PC35_2) Professional use, Washing and cleaning products (Industrial use) - Inorganic alkalis, organic alkalis, inorganic acids, organic acids, bleaching agents

Value type: Worker - inhalation - acute, systemic
Risk characterization ratio: 0.032
Method: AISE Reach Exposure Assessment Consumer Tool (REACT)
Value type: Worker - dermal - acute, systemic
Risk characterization ratio: 0.032
Method: AISE Reach Exposure Assessment Consumer Tool (REACT)

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

Scenario
CS1 - Wide dispersive indoor use of reactive substances in open systems (ERC8b) - Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)
(PC35_2) Professional use, Washing and cleaning products (Industrial use) - Inorganic alkalis, organic alkalis, inorganic acids, organic acids, bleaching agents

For further information, please contact enquiries@scotmas.co.uk, The information within this CS is relevant for all CS within this chapter of the Exposure

Exposure scenario 8:
1. Short title of Exposure Scenario: Professional use, Washing and cleaning products (including solvent based products), Outdoor
Main User Groups: **SU 22:** Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Sector of use: **SU 22:** Public domain (administration, education, entertainment, services, craftsmen)
Product category: **PC35:** Washing and cleaning products (including solvent based products)
CS1: Wide dispersive outdoor use of reactive substances in open systems (ERC8e) - Washing and cleaning products (including solvent based products) (PC35) Professional use, cleaning
CS2: Roller application or brushing (PROC10) - Hand-mixing with intimate contact and only PPE available (PROC19) washing and cleaning products (including solvent based products) (PC35) Cleaning
2. Conditions of use affecting exposure
2.1 Control of environmental exposure for: CS1 - Wide dispersive outdoor use of reactive substances in open systems (ERC8e) - Washing and cleaning products (including solvent based products) (PC35)
Professional use, cleaning
Used CHESAR model.
Product characteristics
Not readily biodegradable.
Amount used
Daily amount for wide disperse uses: 0.016 kg
Other given operational conditions affecting environmental exposure
Dispersive use
Number of emission days per year: 365
Emission or Release Factor: Air: 0.1 %
Emission or Release Factor: Water: 2 %
Emission or Release Factor: Soil: 1 %
Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant: Municipal sewage treatment plant
Assumed domestic sewage treatment plant flow: 2,000 m3/d
Percentage removed from waste water: 12.7 %
Remarks: Receiving surface water flow is 18000 m3/d.
2.2 Control of worker exposure for: CS2 - Roller application or brushing (PROC10) - Hand-mixing with intimate contact and only PPE available (PROC19) Washing and cleaning products (including solvent based products) (PC35) Cleaning
Used CHESAR model.
Product characteristics
Concentration of the substance in Mixture/Article: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Amount used - Frequency and duration of use
Amount per Use: Not required for TRA worker assessments.
Frequency of use: Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure
Exposed skin area: Two hands only
Outdoor / Indoor: Outdoor use
Remarks: Assumes activities are at ambient temperature (unless stated differently).
Conditions and measures related to personal protection, hygiene and health evaluation
Wear suitable gloves tested to EN374. (Effectiveness: 90 %)
For further information see Section 8 of the safety data sheet.
3. Exposure estimation and reference to its source
Environment
CS1 - Wide dispersive outdoor use of reactive substances in open systems (ERC8e) - Washing and cleaning products (including solvent based products) (PC35) Professional use, cleaning
Compartment: Fresh water
Risk characterization ratio: 0.013
Method: Used CHESAR model.
Compartment: Marine water
Risk characterization ratio: 0.012
Method: Used CHESAR model.
Compartment: Sewage treatment plants
Risk characterization ratio: 0.000021
Method: Used CHESAR model.
Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily inhalation).
Risk characterization ratio: < 0.000001
Method: Used CHESAR model.
Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily ingestion).
Risk characterization ratio: 0.000010
Method: Used CHESAR model.

Workers

CS2 - Roller application or brushing (PROC10) - Hand-mixing with intimate contact and only PPE available. (PROC19) Washing and cleaning products (including solvent based products) (PC35) Cleaning
Value type: Worker - inhalation - acute, systemic
Risk characterization ratio: 0.032
Method: AISE Reach Exposure Assessment Consumer Tool (REACT) Value type: Worker - dermal - acute, systemic
Risk characterization ratio: 0.032
Method: AISE Reach Exposure Assessment Consumer Tool (REACT)

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

CS1 - Wide dispersive outdoor use of reactive substances in open systems (ERC8e) - Washing and cleaning products (including solvent based products) (PC35) Professional use, cleaning

For further information, please contact enquiries@scotmas.co.uk, the information within this CS is relevant for all CS within this chapter of the Exposure

Exposure scenario 11

1. **Short title of Exposure Scenario: Industrial use, Oxidizing agent**

Main User Groups: **SU 3:** Industrial uses: Uses of substances as such or in preparations at industrial sites

Sector of use: **SU4:** Manufacture of food products

Product category: **PC19:** Intermediate

CS1: Industrial use resulting in manufacture of another substance (use of Intermediates) (ERC6a) - Intermediate (PC19) Oxidizing agent
CS2: Use in closed process, no likelihood of exposure (PROC1) Intermediate (PC19) Oxidizing agent
CS3: Use in closed, continuous process with occasional controlled exposure (PROC2) Intermediate (PC19) Oxidizing agent
CS4: Use in closed batch process (synthesis or formulation) (PROC3) Intermediate (PC19) Oxidizing agent
CS5: Use in batch and other process (synthesis) where opportunity for exposure Arises (PROC4) Water treatment chemical

2. Conditions of use affecting exposure
2.1 Control of environmental exposure for: CS1 - Industrial use resulting in manufacture of another substance (use of intermediates) (ERC6a) - Intermediate (PC19) Oxidizing agent
Used CHESAR model.

Product characteristics
Not readily biodegradable.
Amount used
Annual site tonnage (tonnes/year) : 100 ton(s)/year
Daily amount for wide disperse uses : 450 kg
Frequency and duration of use
Continuous use/release : 220 days/year
Other given operational conditions affecting environmental exposure
Dispersive use
Emission or Release Factor: Air: 0 %
Emission or Release Factor: Water: 0 %
Emission or Release Factor: Soil: 0 %
Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant : Municipal sewage treatment plant
Assumed domestic sewage treatment plant flow : 2,000 m3/d
Percentage removed from waste water : 0 %
Remarks: Receiving surface water flow is 18000 m3/d

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Conditions and measures related to external treatment of waste

Remarks: no release to the environment Incineration, disposal or recycling at specific offsite provider.

2.2 Control of worker exposure for: CS2 - Use in closed process, no likelihood of exposure (PROC1). Intermediate (PC19) Oxidizing agent

Used CHESAR model.

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 mixture

Amount used - Frequency and duration of use

Amount per Use:	Not required for TRA worker assessments.
Frequency of use:	Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure

Exposed skin area:	One hand face only
Outdoor / Indoor:	Indoor use
	Handle substance within a closed system.

Technical and organisational conditions and measures

Ensure material transfers are under containment or extract ventilation.
Ensure operatives are trained to minimise exposures. Supervision in place to check that the Risk Management
Measures in place are being used correctly and operational conditions followed.

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

Wear a respirator conforming to EN140 with Type A/P2 filter or better. (Effectiveness: 90 %)
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. (Effectiveness: 95 %)
For further information see Section 8 of the safety data sheet.

Additional good practice advice beyond the REACH Chemical Safety Assessment

Avoid manual contact with contaminated tools and objects. Assumes a good basic standard of occupational hygiene is implemented. Segregate the activity away from other operations. Clean equipment and the work area every day. Assumes a good basic standard of occupational hygiene is implemented.

2.3 Control of worker exposure for: CS3 - Use in closed, continuous process with occasional controlled exposure (PROC2) Intermediate (PC19) Oxidizing agent
Used CHESAR model.

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 mixture
Amount used - Frequency and duration of use
Amount per Use: Not required for TRA worker assessments.
Frequency of use: Covers daily exposures up to 8 hours (unless stated differently).
Other operational conditions affecting workers exposure
Exposed skin area: Two hands face only
Outdoor / Indoor: Indoor use
Handle substance within a closed system.
Technical and organisational conditions and measures
Local exhaust ventilation (Effectiveness: 90 %)
Ensure material transfers are under containment or extract ventilation.
Ensure operatives are trained to minimise exposures. Supervision in place to check that the Risk Management
Measures in place are being used correctly and operational conditions followed.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear a respirator conforming to EN140 with Type A/P2 filter or better. (Effectiveness: 90 %)
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. (Effectiveness: 95%)
For further information see Section 8 of the safety data sheet.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Avoid manual contact with contaminated tools and objects. Assumes a good basic standard of occupational hygiene is implemented. Segregate the activity away from other operations. Clean equipment and the work area every day. Assumes a good basic standard of occupational hygiene is implemented.

2.4 Control of worker exposure for: CS4 - Use in closed batch process (synthesis or formulation) (PROC3) Intermediate (PC19) Oxidizing agent

Used CHESAR model.

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

Amount used - Frequency and duration of use

Amount per Use: Not required for TRA worker assessments.

Frequency of use: Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure

Exposed skin area: One hand face only

Outdoor / Indoor: Indoor use

Technical and organisational conditions and measures

Local exhaust ventilation (Effectiveness: 90 %)

Ensure material transfers are under containment or extract ventilation.

Ensure operatives are trained to minimise exposures. Supervision in place to check that the Risk Management

Measures in place are being used correctly and operational conditions followed.

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

Wear a respirator conforming to EN140 with Type A/P2 filter or better. (Effectiveness: 90 %)

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. (Effectiveness: 95%)

For further information see Section 8 of the safety data sheet.

Additional good practice advice beyond the REACH Chemical Safety Assessment

Avoid manual contact with contaminated tools and objects. Assumes a good basic standard of occupational hygiene is implemented. Segregate the activity away from other operations. Clean equipment and the work area every day. Assumes a good basic standard of occupational hygiene is implemented.

2.5 Control of worker exposure for: CS5 - Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4) Water treatment chemical

Used CHESAR model.

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 mixture

Amount used - Frequency and duration of use

Amount per Use: Not required for TRA worker assessments.
Frequency of use: Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure

Exposed skin area: Two hands face only
Outdoor / Indoor: Indoor use

Technical and organisational conditions and measures

Local exhaust ventilation (Effectiveness: 90 %)
Ensure material transfers are under containment or extract ventilation.
Ensure operatives are trained to minimise exposures. Supervision in place to check that the Risk Management
Measures in place are being used correctly and operational conditions followed.

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

Wear a respirator conforming to EN140 with Type A/P2 filter or better. (Effectiveness: 90 %)
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. (Effectiveness: 95 %)
For further information see Section 8 of the safety data sheet.

Additional good practice advice beyond the REACH Chemical Safety Assessment

Avoid manual contact with contaminated tools and objects. Assumes a good basic standard of occupational hygiene is implemented. Segregate the activity away from other operations. Clean equipment and the work area every day. Assumes a good basic standard of occupational hygiene is implemented.

3. Exposure estimation and reference to its source
Environment
CS1 - Industrial use resulting in manufacture of another substance (use of intermediates) (ERC6a) -
Intermediate (PC19) Oxidizing agent
Compartment: Fresh water Risk characterization ratio: 0.01
Method: Used CHESAR model.
Compartment: Marine water Risk characterization ratio: 0.009
Method: Used CHESAR model.
Compartment: Sewage treatment plants Risk characterization ratio: 0
Method: Used CHESAR model.
Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily inhalation).
Risk characterization ratio: < 0.000001
Method: Used CHESAR model.
Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily ingestion).
Risk characterization ratio: 0.000008
Method: Used CHESAR model.

Workers
CS2 - Use in closed process, no likelihood of exposure (PROC1) Intermediate (PC19) Oxidizing agent
Value type: Worker - inhalation - acute, systemic
Risk characterization ratio: 0.02
Method: Used CHESAR model.
Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.01
Method: Used CHESAR model.
Value type: Worker - dermal - acute, systemic
Risk characterization ratio: 0.03
Method: Used CHESAR model.
Value type: Worker - dermal, long-term - systemic
Risk characterization ratio: 0.03
Method: Used CHESAR model.
Value type: Worker - total - long-term, systemic
Risk characterization ratio: 0.039
Method: Used CHESAR model.

CS3 - Use in closed, continuous process with occasional controlled exposure (PROC2) Intermediate (PC19) Oxidizing agent
Value type: Worker - inhalation - acute, systemic
Risk characterization ratio: 0.02
Method: Used CHESAR model.
Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.01
Method: Used CHESAR model.
Value type: Worker - dermal - acute, systemic
Risk characterization ratio: 0.012
Method: Used CHESAR model.
Value type: Worker - dermal, long-term - systemic
Risk characterization ratio: 0.012
Method: Used CHESAR model.
Value type: Worker - total - long-term, systemic
Risk characterization ratio: 0.022
Method: Used CHESAR model.

CS4 - Use in closed batch process (synthesis or formulation) (PROC3) Intermediate (PC19) Oxidizing agent
Value type: Worker - inhalation - acute, systemic
Risk characterization ratio: 0.02
Method: Used CHESAR model.
Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.01
Method: Used CHESAR model.
Value type: Worker - dermal - acute, systemic
Risk characterization ratio: 0.003
Method: Used CHESAR model.
Value type: Worker - dermal, long-term - systemic
Risk characterization ratio: 0.003
Method: Used CHESAR model.
Value type: Worker - total - long-term, systemic
Risk characterization ratio: 0.013
Method: Used CHESAR model.

CS5 - Use in batch and other process (synthesis) where opportunity for exposure arises (PROC4) Water Treatment chemical
Value type: Worker - inhalation - acute, systemic
Risk characterization ratio: 0.02
Method: Used CHESAR model.
Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.01
Method: Used CHESAR model.
Value type: Worker - dermal - acute, systemic

Risk characterization ratio: 0.059

Method: Used CHESAR model.

Value type: Worker - dermal, long-term - systemic

Risk characterization ratio: 0.059

Method: Used CHESAR model.

Value type: Worker - total - long-term, systemic

Risk characterization ratio: 0.069

Method: Used CHESAR model.

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

CS1 - Industrial use resulting in manufacture of another substance (use of intermediates) (ERC6a) -Intermediate (PC19) Oxidizing agent

For further information, please contact enquiries@scotmas.co.uk, the information within this CS is relevant for all CS within this chapter of the Exposure

Exposure scenario 14

1. Short title of Exposure Scenario: Industrial use, Formulation
Main User Groups: **SU 3:** Industrial uses: Uses of substances as such or in preparations at industrial sites
Product category: **PC0:** Other (use UCN codes)

: **PC8:** Biocidal products (e.g. Disinfectants, pest control)
: **PC15:** Non-metal-surface treatment products
: **PC19:** Intermediate
: **PC20:** Products such as pH-regulators, flocculants, precipitants, neutralization agents
: **PC21:** Laboratory chemicals
: **PC25:** Metal working fluids
: **PC26:** Paper and board dye, finishing and impregnation products: including Bleaches and other processing aids
: **PC34:** Textile dyes, finishing and impregnating products; including bleaches and Other processing aids
: **PC35:** Washing and cleaning products (including solvent based products)
: **PC37:** Water treatment chemicals

CS1: Formulation of preparations (ERC2) - Biocidal products (e.g. Disinfectants, pest Control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper And board dye, finishing and impregnation products: including bleaches and Other processing aids (PC26) - Textile dyes, finishing and impregnating Products; including bleaches and other processing aids (PC34) - Washing and Cleaning products (including solvent based products) (PC35) - Water treatment Chemicals (PC37) Industrial use, Formulation

CS2: Use in closed batch process (synthesis or formulation) (PROC3) Biocidal Products (e.g. Disinfectants, pest control) (PC8) - Building and construction Mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, Precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal Working fluids (PC25) - Paper and board dye, finishing and impregnation Products: including bleaches and other processing aids (PC26) - Textile dyes, Finishing and impregnating products; including bleaches and other processing Aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

CS3: Mixing or blending in batch processes for formulation of preparations and Articles (multistage and/ or significant contact) (PROC5) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not

Covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, Neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working Fluids (PC25) - Paper and board dye, finishing and impregnation products: Including bleaches and other processing aids (PC26) - Textile dyes, finishing And impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

CS4: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) (PROC9) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such As pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board Dye, finishing and impregnation products: including bleaches and other Processing aids (PC26) - Textile dyes, finishing and impregnating products; Including bleaches and other processing aids (PC34) - Washing and cleaning Products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

CS5: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ Large containers at non-dedicated facilities (PROC8a) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not Covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, Neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working Fluids (PC25) - Paper and board dye, finishing and impregnation products: Including bleaches and other processing aids (PC26) - Textile dyes, finishing And impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

CS6: Use as laboratory reagent (PROC15) Biocidal products (e.g. Disinfectants, pest Control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper And board dye, finishing and impregnation products: including bleaches and Other processing aids (PC26) - Textile dyes, finishing and impregnating Products; including bleaches and other processing aids (PC34) - Washing and Cleaning products (including solvent based products) (PC35) - Water treatment Chemicals (PC37) Industrial use, Formulation

CS7: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ Large containers at non-dedicated facilities (PROC8a) Biocidal products (e.g.

Disinfectants, pest control) (PC8) - Building and construction mixtures not Covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, Neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working Fluids (PC25) - Paper and board dye, finishing and impregnation products: Including bleaches and other processing aids (PC26) - Textile dyes, finishing And impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

2. Conditions of use affecting exposure

2.1 Control of environmental exposure for: CS1 - Formulation of preparations (ERC2) - Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water Treatment chemicals (PC37) Industrial use, Formulation

Product characteristics
Not readily biodegradable.
Amount used

Annual site tonnage (tonnes/year):	1,000 ton(s)/year
Daily amount per site:	1,600 kg

Frequency and duration of use

Continuous use/release:	320 days/year

Other given operational conditions affecting environmental exposure
Remarks: Air emission controls are not applicable as there is no direct release to air. Low environmental release
Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant:	Municipal sewage treatment plant
Assumed domestic sewage treatment plant flow:	2,000 m3/d
Remarks: Receiving surface water flow is	18000 m3/d.
Type of Sewage Treatment Plant:	Physic-chemical elimination
Estimated removal efficiency (waste water):	99 %

Conditions and measures related to external treatment of waste
Remarks: External treatment and disposal of waste should comply with applicable local and/or national regulations.

2.2 Control of worker exposure for: CS2 - Use in closed batch process (synthesis or formulation) (PROC3) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as ph.-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) – Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

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
Remarks: Vapour pressure < 0.01 Pa

Amount used - Frequency and duration of use
Amount per Use: Not required for TRA worker assessments.
Frequency of use: Covers frequency up to 5 days per week. Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure
Outdoor / Indoor: Indoor use
Remarks: Assumes activities are at ambient temperature (unless stated differently).

Conditions and measures related to personal protection, hygiene and health evaluation
Use eye protection to EN 166, designed to protect against liquid splashes. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Avoid manual contact with contaminated tools and objects. Clean equipment and the work area every day.

2.3 Control of worker exposure for: CS3 - Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact) (PROC5) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) -Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, Flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids
(PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and

impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) – Water treatment chemicals (PC37) Industrial use, Formulation

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
Remarks: Vapour pressure < 0.01 Pa

Amount used - Frequency and duration of use
Amount per Use: Not required for TRA worker assessments.
Frequency of use: Covers frequency up to 5 days per week. Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure
Outdoor / Indoor: Indoor use
Remarks: Assumes activities are at ambient temperature (unless stated differently).

Conditions and measures related to personal protection, hygiene and health evaluation
Use eye protection to EN 166, designed to protect against liquid splashes. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Avoid manual contact with contaminated tools and objects. Clean equipment and the work area every day.

2.4 Control of worker exposure for: CS4 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) (PROC9) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) – Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) – Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

Product characteristics

Concentration of the
Substance in Mixture/Article
: Covers the percentage of the substance in the product up to 100 % (unless stated differently).
Remarks: Vapour pressure < 0.01 Pa

Amount used - Frequency and duration of use
Amount per Use: Not required for TRA worker assessments.
Frequency of use: Covers frequency up to 5 days per week. Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure
Outdoor / Indoor: Indoor use
Remarks: Assumes activities are at ambient temperature (unless stated differently

: Handle substance within a predominantly closed system provided with extract ventilation.
Conditions and measures related to personal protection, hygiene and health evaluation
Use eye protection to EN 166, designed to protect against liquid splashes. Wear chemically resistant gloves (tested
To EN374) in combination with intensive management supervision controls.
Additional good practice advice beyond the REACH Chemical Safety Assessment
Avoid manual contact with contaminated tools and objects. Clean equipment and the work area every day.
**2.5 Control of worker exposure for: CS5 - Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a) Biocidal products (e.g.
Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids
(PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) – Water treatment chemicals (PC37) Industrial use, Formulation**

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
Remarks: Vapour pressure < 0.01 Pa

Amount used - Frequency and duration of use

Amount per Use: Not required for TRA worker assessments.
Frequency of use: Covers frequency up to 5 days per week. Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure
Outdoor / Indoor: Indoor use
Remarks: Assumes activities are at ambient temperature (unless stated differently).

Conditions and measures related to personal protection, hygiene and health evaluation
Safety glasses with side-shields conforming to EN166 Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Avoid manual contact with contaminated tools and objects. Clean equipment and the work area every day.

2.6 Control of worker exposure for: CS6 - Use as laboratory reagent (PROC15) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) -Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) – Water treatment chemicals (PC37) Industrial use, Formulation

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
Remarks: Vapour pressure < 0.01 Pa

Amount used - Frequency and duration of use
Amount per Use: Not required for TRA worker assessments.
Frequency of use: Covers frequency up to 5 days per week. Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure
Outdoor / Indoor: Indoor use
Remarks: Assumes activities are at ambient temperature (unless stated differently).

Conditions and measures related to personal protection, hygiene and health evaluation
Use eye protection to EN 166, designed to protect against liquid splashes. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.
Additional good practice advice beyond the REACH Chemical Safety Assessment
Avoid manual contact with contaminated tools and objects. Clean equipment and the work area every day.

2.7 Control of worker exposure for: CS7 - Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a) Biocidal products (e.g.
Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators,
Flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids
(PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) – Water treatment chemicals (PC37) Industrial use, Formulation

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
Remarks: Vapour pressure < 0.01 Pa

Amount used - Frequency and duration of use
Amount per Use: Not required for TRA worker assessments.
Frequency of use: Covers frequency up to 5 days per week. Covers daily exposures up to 8 hours (unless stated differently).

Other operational conditions affecting workers exposure
Outdoor / Indoor: Indoor use
Remarks: Assumes activities are at ambient temperature (unless stated differently).

Conditions and measures related to personal protection, hygiene and health evaluation
Use eye protection to EN 166, designed to protect against liquid splashes. Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Avoid manual contact with contaminated tools and objects. Clean equipment and the work area every day.

3. Exposure estimation and reference to its source
Environment
CS1 - Formulation of preparations (ERC2) - Biocidal products (e.g. Disinfectants, pest control) (PC8) -Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products, (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning Products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use,

Formulation
Compartment: Fresh water Risk characterization ratio: 0.233
Method: Used ECETOC TRA model (May 2010 release).
Compartment: Marine water Risk characterization ratio: 0.233
Method: Used ECETOC TRA model (May 2010 release).
Compartment: Sewage treatment plants Risk characterization ratio: 0.0015
Method: Used ECETOC TRA model (May 2010 release).
Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily inhalation).
Risk characterization ratio: 0.000007
Method: Used ECETOC TRA model (May 2010 release).

Compartment: Risk from environmental exposure is driven by humans via indirect exposure (primarily ingestion).
Risk characterization ratio: 0.000007
Method: Used ECETOC TRA model (May 2010 release).

Workers
CS2 - Use in closed batch process (synthesis or formulation) (PROC3) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) -Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids(PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) – Water treatment chemicals (PC37) Industrial use, Formulation

Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.28
Method: Used ECETOC TRA model (May 2010 release).

Value type: Worker - dermal, long-term - systemic
Risk characterization ratio: 0.37
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - total - long-term, systemic
Risk characterization ratio: 0.65
Method: Used ECETOC TRA model (May 2010 release).

CS3 - Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact) (PROC5) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and Impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.28
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - dermal, long-term - systemic
Risk characterization ratio: 0.37
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - total - long-term, systemic
Risk characterization ratio: 0.65
Method: Used ECETOC TRA model (May 2010 release).

CS4 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing) (PROC9) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation
Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.28
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - dermal, long-term - systemic
Risk characterization ratio: 0.18

Method: Used ECETOC TRA model (May 2010 release).

Value type: Worker - total - long-term, systemic
Risk characterization ratio: 0.47
Method: Used ECETOC TRA model (May 2010 release).

CS5 - Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.28
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - dermal, long-term - systemic
Risk characterization ratio: 0.37
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - total - long-term, systemic
Risk characterization ratio: 0.65
Method: Used ECETOC TRA model (May 2010 release).

CS6 - Use as laboratory reagent (PROC15) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as ph.-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.28
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - dermal, long-term - systemic
Risk characterization ratio: 0.0092
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - total - long-term, systemic

Risk characterization ratio: 0.29
Method: Used ECETOC TRA model (May 2010 release).
CS7 - Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities (PROC8a) Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

Value type: Worker - inhalation - long-term, systemic
Risk characterization ratio: 0.28
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - dermal, long-term - systemic
Risk characterization ratio: 0.37
Method: Used ECETOC TRA model (May 2010 release).
Value type: Worker - total - long-term, systemic
Risk characterization ratio: 0.65
Method: Used ECETOC TRA model (May 2010 release).

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure
Scenario CS1 - Formulation of preparations (ERC2) - Biocidal products (e.g. Disinfectants, pest control) (PC8) - Building and construction mixtures not covered elsewhere (PC10) - Non-metal-surface treatment products (PC15) - Intermediate (PC19) - Products such as ph.-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Metal working fluids (PC25) - Paper and board dye, finishing and impregnation products: including bleaches and other processing aids (PC26) - Textile dyes, finishing and impregnating products; including bleaches and other processing aids (PC34) - Washing and cleaning products (including solvent based products) (PC35) - Water treatment chemicals (PC37) Industrial use, Formulation

For further information, please contact enquiries@scotmas.co.uk, the information within this CS is relevant for all CS within this chapter of the Exposure