ORTHO-CRESOL

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

1.1. Product identifier

Product name:	Ortho-Cresol
CAS Number:	95-48-7
EC Number:	202-423-8

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

Product use:	Laboratory chemicals, Industrial & for professional use only

1.3 Details of the supplier of the safety data sheet

Company name:	East Harbour Group Ltd 20 Clough Road, Severalls Industrial Park Colchester, Essex, CO4 9QS United Kingdom
Telephone:	+44 (0) 333 242 0100
Email:	info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone:	0800 246 1274

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Acute toxicity, Oral (Category 3), H301
Acute toxicity, Dermal (Category 3), H311
Skin corrosion (Sub-category 1B), H314
Serious eye damage (Category 1), H318
Long-term (chronic) aquatic hazard (Category 3), H412
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Pictogram

Signal Word Danger

ORTHO-CRESOL

Hazard statement(s)

H301 + H311	Toxic if swallowed or in contact with skin.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P260	Do not breathe dust.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements none

Reduced Labelling (<= 125 ml)

Pictogram

Signal Word Danger

Hazard statement(s)

H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.
H301 + H311	Toxic if swallowed or in contact with skin.

Precautionary statement(s)

P260	Do not breathe dust.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 3: Composition/information on ingredients

3.1 Substances

Synonyms:	2-Methylphenol
Formula:	C7H8O
Molecular weight:	108.14 g/mol
CAS-No.:	95-48-7
EC-No.:	202-423-8

Component		Classification	Concentration
o-cresol			
CAS-No. EC-No.	95-48-7 202-423-8	Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Aquatic Chronic 3; H301, H311, H314, H318, H412	<= 100 %

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

Section 4: First aid measures

4.1 Description of first aid measures

General advice
First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled
After inhalation: fresh air. Call in physician.

In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact
After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed
If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:
Suitable extinguishing media
Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
Carbon oxides
Combustible.
Vapors are heavier than air and may spread along floors.
Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information
Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area.
Avoid generation of dusts.

6.4 Reference to other sections
For disposal see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling
Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.
Air and light sensitive. Store under nitrogen.

Storage class
Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8: Exposure controls/personal protection

8.1 Control parameters
Ingredients with workplace control parameters
Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL)

Application Area	Routes of exposure	Health effect	Value
Worker DNEL, acute	inhalation	Systemic effects	153 mg/m3
Worker DNEL, acute	dermal	Systemic effects	
Worker DNEL, long-term	inhalation	Systemic effects	3.5 mg/m3
Worker DNEL, long-term	dermal	Systemic effects	
Consumer DNEL, acute	oral, dermal	Systemic effects	
Consumer DNEL, acute	inhalation	Systemic effects	105 mg/m3
Consumer DNEL, long-term	oral, dermal	Systemic effects	
Consumer DNEL, long-term	inhalation	Systemic effects	0.75 mg/m3

Predicted No Effect Concentration (PNEC)

Compartment	Value
Fresh water	0.1 mg/l
Sea water	0.01 mg/l
Aquatic intermittent release	0.062 mg/l
Sewage treatment plant	1.28 mg/l
Fresh water sediment	0.58 mg/kg

Sea sediment	0.058 mg/kg
Soil	0.0572 mg/kg

8.2 Exposure controls
Personal protective equipment
Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection
This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).
Full contact
Material: Chloroprene
Minimum layer thickness: 0.65 mm
Break through time: 480 min
Material tested: KCL 720 Camapren®

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).
Splash contact
Material: Latex gloves
Minimum layer thickness: 0.6 mm
Break through time: 60 min.
Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)

Body Protection
Flame retardant antistatic protective clothing.

Respiratory protection
Recommended Filter type: Filter A-(P3)
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.
These measures have to be properly documented.

Control of environmental exposure
Do not let product enter drains.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state	powder
b) Color	white
c) Odor	No data available
d) Melting point/freezing point	Melting point/range: 30 - 34 °C
e) Initial boiling point and boiling range	191 °C - lit.
f) Flammability (solid, gas)	No data available

g) Upper/lower flammability or explosive limits	Upper explosion limit: 58 %(V) Lower explosion limit: 1.3 %(V)
h) Flash point	81.0 °C - closed cup
i) Autoignition temperature	599.0 °C
j) Decomposition temperature	No data available
k) pH	4.5 at 25.00000 g/l
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m) Water solubility	25 g/l at 20 °C
n) Partition coefficient: n-octanol/water	No data available
o) Vapor pressure	3.1 hPa at 60.0 °C 1.3 hPa at 38.2 °C 0.4 hPa at 20.0 °C
p) Density	1.048 g/cm3 at 25 °C
Relative density	No data available
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none

9.2 Other safety information
No data available

Section 10: Stability and Reactivity

10.1 Reactivity
Forms explosive mixtures with air on intense heating.
A range from approx. 15 Kelvin below the flash point is to be rated as critical.
The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions
Violent reactions possible with:
Strong oxidizing agents
Nitric acid
fuming sulfuric acid

10.4 Conditions to avoid
Strong heating.

10.5 Incompatible materials
Aluminium, Strong oxidizing agents

10.6 Hazardous decomposition products
In the event of fire: see section 5

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Section 11: Toxicological Information

11.1 Toxicological effects:
Acute toxicity
LD50 Oral - Rat - 121.0 mg/kg
Remarks: Behavioural: Convulsions or effect on seizure threshold.
Lungs, Thorax, or Respiration: Dyspnoea.
Gastrointestinal: Ulceration or bleeding from stomach.
(RTECS)
Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Acute toxicity estimates Oral - 121 mg/kg
(ATE value derived from LD50/LC50 value)
Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract
LD50 Dermal - Rat - 620.0 mg/kg
Remarks: (RTECS)
Acute toxicity estimates Dermal - 620 mg/kg
(ATE value derived from LD50/LC50 value)

Skin corrosion/irritation
Remarks: Causes skin burns.
Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation
Remarks: Causes serious eye damage.
Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Respiratory or skin sensitization
No data available

Germ cell mutagenicity

Test Type:	Ames test
Test system:	Salmonella typhimurium
Metabolic activation:	with and without metabolic activation
Method:	OECD Test Guideline 471
Result:	negative
Test Type:	In vitro mammalian cell gene mutation test
Test system:	mouse lymphoma cells
Metabolic activation:	with and without metabolic activation
Method:	OECD Test Guideline 476
Result:	negative
Test Type:	Chromosome aberration test in vitro
Test system:	Chinese hamster ovary cells
Metabolic activation:	with and without metabolic activation
Method:	OECD Test Guideline 473
Result:	positive

Carcinogenicity
No data available

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Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

11.2 Additional Information
Endocrine disrupting properties
Product:

Assessment:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 50 mg/kg
Remarks: (ECHA)

RTECS: GO6300000
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Central nervous system depression, Diarrhea, Gastrointestinal disturbance
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Systemic effects:
Headache
Nausea
Vomiting
Dizziness
agitation, spasms
cardiovascular disorders

After absorption:

Damage to:
Central nervous system
Liver
Kidney

Other dangerous properties cannot be excluded.
This substance should be handled with particular care.

Section 12: Ecological Information

ORTHO-CRESOL

12.1 Toxicity

Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 8.4 mg/l - 96 h Remarks: (ECOTOX Database)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 15.7 mg/l - 48 h Remarks: (ECHA) The value is given in analogy to the following substances: p-cresol
	semi-static test NOEC - Daphnia - 1 mg/l - 21 d Remarks:
Toxicity to algae	static test ErC50 - SELENASTRUM - 100.00 mg/l - 96 h Remarks: (ECHA)
Toxicity to bacteria	EC50 - Photobacterium phosphoreum - 32 mg/l - 30 min Remarks: (IUCLID)

12.2 Persistence and degradability

Biodegradability	aerobic - Exposure time 7 d Result: 100 % - Inherently biodegradable. (OECD Test Guideline 302B)
Theoretical oxygen Demand	2,520 mg/g Remarks: (Lit.)
Ratio BOD/ThBOD	65 % Remarks: (Lit.)

12.3 Bio accumulative potential

Bioaccumulation	Danio rerio (zebra fish) (o-cresol) Bioconcentration factor (BCF): 10.7 (OECD Test Guideline 305)

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Biological effects:
Hazard for drinking water supplies.
Change in the flavour characteristics of fish protein.
Discharge into the environment must be avoided.

Section 13: Disposal considerations

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13.1 Waste treatment methods
Product
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. Notice Directive on waste 2008/98/EC.

Section 14: Transport Information

14.1 UN number
ADR/RID: 3455 IMDG: 3455 IATA: 3455

14.2 UN proper shipping name
ADR/RID: CRESOLS, SOLID
IMDG: CRESOLS, SOLID
IATA: Cresols, solid

14.3 Transport hazard class(es)
ADR/RID: 6.1 (8) IMDG: 6.1 (8) IATA: 6.1 (8)

14.4 Packaging group
ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user
Tunnel restriction code: (D/E)
Further information: No data available

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Other regulations
Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.
Take note of Dir 94/33/EC on the protection of young people at work.

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 sections 2 and 3.

H301	Toxic if swallowed.
H301 + H311	Toxic if swallowed or in contact with skin.
H311	Toxic in contact with skin.
H314	Toxic if swallowed or in contact with skin.

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H318	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. ADR - Agreement concerning the International Carriage of Dangerous Goods by Road.
AIIC	Australian Inventory of Industrial Chemicals.
ASTM	American Society for the Testing of Materials; bw - Body weight.
CMR	Carcinogen, Mutagen or Reproductive Toxicant.
DIN	Standard of the German Institute for Standardisation.
DSL	Domestic Substances List (Canada).
ECx	Concentration associated with x% response.
ELx	Loading rate associated with x% response.
EmS	Emergency Schedule.
ENCS	Existing and New Chemical Substances (Japan).
ErCx	Concentration associated with x% growth rate response.
GHS	Globally Harmonized System.
GLP	Good Laboratory Practice.
IARC	International Agency for Research on Cancer.
IATA	International Air Transport Association.
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk.
IC50	Half maximal inhibitory concentration.
ICAO	International Civil Aviation Organization.
IECSC	Inventory of Existing Chemical Substances in China.
IMDG	International Maritime Dangerous Goods.
IMO	International Maritime Organization.
ISHL	Industrial Safety and Health Law (Japan).
ISO	International Organisation for Standardization.
KECI	Korea Existing Chemicals Inventory.
LC50	Lethal Concentration to 50 % of a test population.
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose).
MARPOL	International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified.
NO(A)EC	No Observed (Adverse) Effect Concentration.
NO(A)EL	No Observed (Adverse) Effect Level.
NOELR	No Observable Effect Loading Rate.
NZIoC	New Zealand Inventory of Chemicals.
OECD	Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention.
PBT	Persistent, Bioaccumulative and Toxic substance.
PICCS	Philippines Inventory of Chemicals and Chemical Substances.
(Q)SAR	(Quantitative) Structure Activity Relationship.
REACH	Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail.
SADT	Self-Accelerating Decomposition Temperature.
SDS	Safety Data Sheet.
TCSI	Taiwan Chemical Substance Inventory.
TECI	Thailand Existing Chemicals Inventory.
TSCA	Toxic Substances Control Act (United States).
UN	United Nations.

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UNRTDG	United Nations Recommendations on the Transport of Dangerous Goods.
vPvB	Very Persistent and Very Bio accumulative.

Annex: Exposure scenario
Identified uses:
Use: Industrial use

SU 3:	Industrial uses: Uses of substances as such or in preparations at industrial sites
SU 3, SU9, SU 10:	Industrial uses: Uses of substances as such or in preparations at industrial sites, Manufacture of fine chemicals, Formulation [mixing] of preparations and/ or re-packaging (excluding alloys)
PC19:	Intermediate
PC21:	Laboratory chemicals
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)
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
PROC15:	Use as laboratory reagent
ERC2, ERC4, ERC6a:	Formulation of preparations, Industrial use of processing aids in processes and products, not becoming part of articles, Industrial use resulting in manufacture of another substance (use of intermediates)

Use: Professional use

SU 22:	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
PC21:	Laboratory chemicals
PROC15:	Use as laboratory reagent
ERC2, ERC6a:	Formulation of preparations, Industrial use resulting in manufacture of another substance (use of intermediates)

1. Short title of Exposure Scenario: Industrial use

Main User Groups:	**SU 3**
Sectors of end-use:	**SU 3, SU9, SU 10**
Chemical product category:	**PC19, PC21**
Process categories:	**PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC10, PROC15**
Environmental Release Categories:	**ERC2, ERC4, ERC6a:**

2. Exposure scenario
2.1 Contributing scenario controlling environmental exposure for: ERC2, ERC4
Amount used

Annual amount per site:	5000 t

Other given operational conditions affecting environmental exposure

Number of emission days per year:	300
Emission or Release Factor: Air:	0 %

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

2.1 Contributing scenario controlling environmental exposure for: ERC6a
Amount used

Annual amount per site:	80 t

Environment factors not influenced by risk management

Flow rate:	50,000 m3/d
Dilution Factor (River):	40
Dilution Factor (Coastal Areas):	100

Other given operational conditions affecting environmental exposure

Continuous exposure	
Number of emission days per year:	16
Emission or Release Factor: Air:	0 %
Emission or Release Factor: Water	2 %
Emission or Release Factor: Soil:	0.01 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant:	Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent	10,000 m3/d
Percentage removed from waste Water	87.5 %

2.1 Contributing scenario controlling environmental exposure for: ERC6a
Amount used

Annual amount per site:	400 t

Environment factors not influenced by risk management

Flow rate:	50,000 m3/d
Dilution Factor (River):	40
Dilution Factor (Coastal Areas):	100

Other given operational conditions affecting environmental exposure

Continuous exposure	
Number of emission days per year:	80
Emission or Release Factor: Air:	0 %
Emission or Release Factor: Water	2 %
Emission or Release Factor: Soil:	0.01 %

Conditions and measures related to municipal sewage treatment plant

Type of Sewage Treatment Plant:	Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent	10,000 m3/d
Percentage removed from waste: Water	87.5 %

2.1 Contributing scenario controlling environmental exposure for: ERC6a

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Amount used
Annual amount per site: 1200t

Environment factors not influenced by risk management
Flow rate: 50,000 m3/d
Dilution Factor (River): 40
Dilution Factor (Coastal Areas): 100

Other given operational conditions affecting environmental exposure
Continuous exposure
Number of emission days per year: 120
Emission or Release Factor: Air: 0 %
Emission or Release Factor: Water 0.05 %
Emission or Release Factor: Soil: 0.01 %

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant: Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent 10,000 m3/d
Percentage removed from waste Water 87.5 %

2.5 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC4, PROC8b, PROC9, PROC10, 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): Low volatile liquid
Process Temperature: < 70 °C

Frequency and duration of use
Frequency of use: 8 hours/day
Frequency of use: 230 days/year

Other operational conditions affecting workers exposure
Outdoor / Indoor: Indoor without local exhaust ventilation (LEV)

Organizational measures to prevent /limit releases, dispersion and exposure
Covers daily exposures up to 8 hours.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Wear suitable gloves (tested to EN374) 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): Low volatile liquid
Process Temperature: < 70 °C

Frequency and duration of use

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Frequency of use: 8 hours/day

Other operational conditions affecting workers exposure
Outdoor / Indoor: Indoor with local exhaust ventilation (LEV)

Organizational measures to prevent /limit releases, dispersion and exposure
Covers daily exposures up to 8 hours.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Use suitable eye protection.

3. Exposure estimation and reference to its source
Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value	Level of Exposure	RCR*
ERC2	Qualitative assessment used to conclude safe use.		All compartments			< 1
ERC4	Qualitative assessment used to conclude safe use.		All compartments			< 1
ERC6a	EUSES		All compartments			< 1
ERC6a	EUSES		All compartments			< 1
ERC6a	EUSES		All compartments			< 1

Workers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value	Level of Exposure	RCR*
PROC1	Measured data	long-term, inhalative, systemic				< 1
PROC1	ECETOC TRA	long-term, dermal, systemic				< 1
PROC2	Measured data	long-term, inhalative, systemic				< 1
PROC2	ECETOC TRA	long-term, dermal, systemic				< 1
PROC3	Measured data	long-term, inhalative, systemic				< 1
PROC3	ECETOC TRA	long-term, dermal, systemic				< 1
PROC4	Measured data	long-term, inhalative, systemic				< 1
PROC4	ECETOC TRA	long-term, dermal, systemic				< 1
PROC8b	Measured data	long-term, inhalative, systemic				< 1
PROC8b	ECETOC TRA	long-term, dermal,				< 1

		systemic				
PROC9	Measured data	long-term, inhalative, systemic				< 1
PROC9	ECETOC TRA	long-term, dermal, systemic				< 1
PROC10	Measured data	long-term, inhalative, systemic				< 1
PROC10	ECETOC TRA	long-term, dermal, systemic				< 1
PROC15	Measured data	long-term, inhalative, systemic				< 1
PROC15	ECETOC TRA	long-term, dermal, systemic				< 1

*Risk characterisation ratio

PROC5	ECETOC TRA	long-term, inhalative, systemic				0.64
PROC5	ECETOC TRA	long-term, dermal, systemic				0.27
PROC5	ECETOC TRA	longterm, combined, systemic				0.92

*Risk characterisation ratio

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

Please refer to the following documents: ECHA Guidance on information requirements and chemical safety assessment Chapter R.12: Use descriptor system; ECHA Guidance for downstream users; ECHA Guidance on information requirements and chemical safety assessment Part D: Exposure Scenario Building, Part E: Risk Characterisation and Part G: Extending the SDS; VCI/Cefic REACH Practical Guides on Exposure Assessment and Communications in the Supply Chain; CEFIC Guidance Specific Environmental Release Categories (SPERCs).

1. Short title of Exposure Scenario: Professional use

Main User Groups: **SU 22**
Sectors of end-use: **SU 22**
Chemical product category: **PC21**
Process categories: **PROC15**
Environmental Release Categories: **ERC2, ERC6a:**

2. Exposure scenario

2.1 Contributing scenario controlling environmental exposure for: ERC2

Amount used

Annual amount per site: 5000 t

Other given operational conditions affecting environmental exposure

Number of emission days per year: 300
Emission or Release Factor: Air: 0 %
Emission or Release Factor: Water 0 %
Emission or Release Factor: Soil: 0 %

2.1 Contributing scenario controlling environmental exposure for: ERC6a

ORTHO-CRESOL

Amount used
Annual amount per site: 80 t

Environment factors not influenced by risk management
Flow rate: 50,000 m3/d
Dilution Factor (River): 40
Dilution Factor (Coastal Areas): 100

Other given operational conditions affecting environmental exposure
Continuous exposure
Number of emission days per year: 16
Emission or Release Factor: Air: 0 %
Emission or Release Factor: Water 2 %
Emission or Release Factor: Soil: 0.01 %

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant: Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent 10,000 m3/d
Percentage removed from waste Water 87.5 %

2.1 Contributing scenario controlling environmental exposure for: ERC6a
Amount used
Annual amount per site: 400 t

Environment factors not influenced by risk management
Flow rate: 50,000 m3/d
Dilution Factor (River): 40
Dilution Factor (Coastal Areas): 100

Other given operational conditions affecting environmental exposure
Continuous exposure
Number of emission days per year: 80
Emission or Release Factor: Air: 0 %
Emission or Release Factor: Water 2 %
Emission or Release Factor: Soil: 0.01 %

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant: Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent 10,000 m3/d
Percentage removed from waste Water 87.5 %

2.1 Contributing scenario controlling environmental exposure for: ERC6a
Amount used
Annual amount per site: 1200 t

Environment factors not influenced by risk management
Flow rate: 50,000 m3/d

Dilution Factor (River): 40
Dilution Factor (Coastal Areas): 100

Other given operational conditions affecting environmental exposure
Continuous exposure
Number of emission days per year: 120
Emission or Release Factor: Air: 0 %
Emission or Release Factor: Water 0.05 %
Emission or Release Factor: Soil: 0.01 %

Conditions and measures related to municipal sewage treatment plant
Type of Sewage Treatment Plant: Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent 10,000 m3/d
Percentage removed from waste Water 87.5 %

2.5 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): Low volatile liquid
Process Temperature: < 70 °C

Frequency and duration of use
Frequency of use: 8 hours/day

Other operational conditions affecting workers exposure
Outdoor / Indoor: Indoor with local exhaust ventilation (LEV)

Organizational measures to prevent /limit releases, dispersion and exposure
Covers daily exposures up to 8 hours.

Conditions and measures related to personal protection, hygiene and health evaluation
Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.

Additional good practice advice beyond the REACH Chemical Safety Assessment
Use suitable eye protection.

3. Exposure estimation and reference to its source
Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value	Level of Exposure	RCR*
ERC2	Qualitative assessment used to conclude safe use.		All compartments			< 1
ERC6a	EUSES		All compartments			< 1
ERC6a	EUSES		All compartments			< 1
ERC6a	EUSES		All compartments			< 1

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Workers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value	Level of Exposure	RCR*
PROC15	ECETOC TRA	long-term, inhalative, systemic				0.9
PROC15	ECETOC TRA	long-term, dermal, systemic				0.01
PROC15	ECETOC TRA	longterm, combined, systemic				0.91

*Risk characterisation ratio

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

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