1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name	:	TIMBERSILK
Registration number	:	01-2119489989-04-0000, 01-2119489989-04-0009
IFF Code	:	00201694
SDS Number	:	300000316429

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

Use of the Substance/Mixture	:	Fragrance for consumer product

1.3 Details of the supplier of the safety data sheet

Company	:	IFF Benicarló, S.L. Avda. Felipe Klein 2 12580 BENICARLÓ Spain
Telephone	:	+34964470212
Telefax	:	+34964473411
E-mail address	:	sds@iff.com
Responsible/issuing person		

1.4 Emergency telephone number

Refer to section 16 for country specific emergency contact number.

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Skin sensitisation, Sub-category 1B	H317: May cause an allergic skin reaction.
Chronic aquatic toxicity, Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements	:	H315	Causes skin irritation.
		H317	May cause an allergic skin reaction.
		H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements	:	**Prevention:**	
		P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
		P273	Avoid release to the environment.
		P280	Wear protective gloves.
		Response:	
		P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
		P362 + P364	Take off contaminated clothing and wash it before reuse.
		P391	Collect spillage.

Hazardous components which must be listed on the label:

- 68155-66-8, 54464-57-2, 68155-67-9, 54464-59-4 Tetramethyl Acetyloctahydronaphthalenes

2.3 Other hazards

None reasonably foreseeable.

3. Composition/information on ingredients

3.1 Substances

Chemical name of the substance : Tetramethyl Acetyloctahydronaphthalenes

Chemical characterization : alicyclic ketones
Molecular formula : C16H26O
Molecular weight : 234,2 g/mol
CAS-No. : 68155-66-8, 54464-57-2, 68155-67-9
EINECS-No. : 268-978-3, 259-174-3, 268-979-9
REACH No. : 01-2119489989-04-0000, 01-2119489989-04-0009

Hazardous components

Chemical name	CAS-No. EC-No.	GHS Classification	Concentration [%]
Tetramethyl Acetyloctahydronaphthalenes	68155-66-8, 54464-57-2, 68155-67-9, 54464-59-4 915-730-3	Skin Irrit.2; H315 Skin Sens.1B; H317 Aquatic Chronic1; H410	90 - 100

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

3.2 Mixtures

Not applicable, product is a substance.

4. First aid measures

4.1 Description of first aid measures

General advice : Take Hazard and Precautionary phrases (section 2) into account.

If inhaled : Remove from exposure site to fresh air and keep at rest. If victim is unconscious, remove foreign bodies from the mouth. If victim has stopped breathing, give artificial respiration. Obtain medical advice.

In case of skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.

In case of eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

If swallowed : Rinse mouth with water and obtain medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : No information available.

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4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Carbondioxide, dry chemical, foam.

Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Water may be ineffective.

5.3 Advice for firefighters

Further information : Standard procedure for chemical fires.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.

6.2 Environmental precautions

Environmental precautions : Keep away from drains, surface- and groundwater and soil.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

6.4 Reference to other sections

Prevent spreading over a wide area (e.g. by containment or oil barriers).

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.
Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

7.3 Specific end use(s)

Specific use(s) : No information available.

8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

DNEL : End Use: Workers
Exposure routes: Skin contact
Potential health effects: Acute effects, Local effects
Exposure time: 8 h

Value: 0,1011 mg/cm2

DNEL : End Use: Workers
Exposure routes: Skin contact
Potential health effects: Chronic effects
Exposure time: 8 h
Value: 1,73 mg/kg bw/day

DNEL : End Use: Workers
Exposure routes: Inhalation
Potential health effects: Chronic effects
Exposure time: 8 h
Value: 1,76 mg/m3

DNEL :

PNEC : Fresh water
Value: 0,0028 mg/l

PNEC : Marine water
Value: 0,00028 mg/l

PNEC : Fresh water sediment
Value: 3,73 mg/kg

PNEC : Marine sediment
Value: 0,75 mg/kg

PNEC : Soil
Value: 0,705 mg/kg

PNEC :

8.2 Exposure controls

Engineering measures

Where appropriate, use closed systems to transfer and process this material.
If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

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Personal protective equipment

Respiratory protection	:	Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient. If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used: a)while engineering controls and appropriate safe work practices and/or procedures are being implemented; or b)during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or c)if normal operational workplace vapor concentration in the air is increased due to heat ; d)during emergencies; or e)if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.
Hand protection	:	Avoid skin contact. Use chemically resistant gloves.
Eye protection	:	Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.
Hygiene measures	:	To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material. To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Environmental exposure controls

General advice : Keep away from drains, surface- and groundwater and soil.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	pale yellow
Odour	:	conforms to standard
Odour Threshold	:	not determined
Flash point	:	> 100 °C
Lower explosion limit	:	not determined
Upper explosion limit	:	not determined
Flammability (solid, gas)	:	not determined
Oxidizing properties	:	not determined
Auto-ignition temperature	:	260 °C at 1.013 hPa Method: Tested according to Annex V of Directive 67/548/EEC.
pH	:	not determined
Melting point	:	not determined
Boiling point	:	290,00 °C at 1.013 hPa Note: Calculated
Vapour pressure	:	< 0,01 hPa Calculated
Density	:	not determined
Water solubility	:	0,00268 g/l at 20 °C Method: OECD Test Guideline 105
Partition coefficient: n-octanol/water	:	log Pow: 5,650
Solubility in other solvents	:	not determined
Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined
Relative vapour density	:	not determined
Evaporation rate	:	not determined

9.2 Other information

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Refractive index	:	not determined
Relative density	:	0,96 - 0,967 at 20 °C Method: ISO 279

10. Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Note: Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid	:	Direct sources of heat.

10.5 Incompatible materials

Materials to avoid	:	Avoid contact with strong acids, alkali or oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products	:	Carbon monoxide and unidentified organic compounds may be formed during combustion.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	:	LD50: > 5.000 mg/kg Species: Rat Method: OECD Test Guideline 401
Acute dermal toxicity	:	LD50: > 5.000 mg/kg Species: Rat

Method: OECD Test Guideline 402

Skin corrosion/irritation

Skin irritation : No information available.
Skin irritation : Species: human
Result: Skin irritation
Method: OECD 439

Serious eye damage/eye irritation

No information available.
Eye irritation : Result: No eye irritation
Method: QSAR

Respiratory or skin sensitisation

No information available.
Sensitisation : LLNA
Species: Mouse
Result: Causes sensitisation.
Method: OECD 429

Germ cell mutagenicity

No information available.
Genotoxicity in vitro : Ames test
Result: negative
Method: Mutagenicity (Escherichia coli - reverse mutation assay)

: Chromosome aberration test in vitro
Human lymphocytes
Result: negative
Method: OECD 473

Genotoxicity in vivo : in vivo assay
Species: Mouse
Method: Mutagenicity (micronucleus test)
Result: negative

: in vivo assay
Species: Rat

Method: Mutagenicity (micronucleus test)
Result: negative

Carcinogenicity

No information available.

Reproductive toxicity

No information available.

Teratogenicity : Species: Rat
Application Route: Oral
Number of exposures: 1x /day
Method: OECD 414

Target Organ Systemic Toxicant - Single exposure

No information available.

Target Organ Systemic Toxicant - Repeated exposure

No information available.

: Species: Rat, male and female
Application Route: Oral
Exposure time: 28-day ()
Number of exposures: 1x /day
NOEL: 150 mg/kg
Method: OECD Test Guideline 407
Repeated dose (28 days) toxicity (oral)

Aspiration hazard

No information available.

12. Ecological information

12.1 Toxicity

Toxicity to fish : LC50: 1,3 mg/l
Exposure time: 96 h

Species: Lepomis macrochirus (Bluegill sunfish)
semi-static test Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50: 1,38 mg/l
Exposure time: 48 h

Species: Daphnia magna (Water flea)
semi-static test Method: OECD Test Guideline 202
Remarks:
IFF

Toxicity to algae	:	EC50: 2,6 mg/l Exposure time: 72 h Species: Desmodesmus subspicatus (green algae) static test Method: OECD Test Guideline 201
Toxicity to bacteria	:	NOEC: > 100 mg/l Exposure time: 42 h static test Method: OECD 301 F
Toxicity to fish (Chronic toxicity)	:	NOEC: 0,16 mg/l Exposure time: 30 d Species: Danio rerio (zebra fish) semi-static test Method: OECD 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,028 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD 211

12.2 Persistence and degradability

No information available.

Biodegradability	:	Result: Not readily biodegradable. 11 % Method: OECD 301 C

12.3 Bioaccumulative potential

No information available.

Bioaccumulation	:	Species: Lepomis macrochirus (Bluegill sunfish) Exposure time: 21 d

Bioconcentration factor (BCF): 391
Method: OECD 305

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

No information available.

13. Disposal considerations

13.1 Waste treatment methods

Product	:	Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

ADR

UN number	:	3082
Description of the goods	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Octahydro Tetramethyl Naphthalenyl Ethanone)
Labels	:	9
Packing group	:	III
Environmentally hazardous	:	yes

IATA

UN number	:	3082
Description of the goods	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Octahydro Tetramethyl Naphthalenyl Ethanone)
Labels	:	9
Packing group	:	III
Environmentally hazardous	:	yes

IMDG

UN number	:	3082
Description of the goods	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Octahydro Tetramethyl Naphthalenyl Ethanone)

Labels	:	9
Packing group	:	III
Marine pollutant	:	yes (Octahydro Tetramethyl Naphthalenyl Ethanone)
Special precautions for user	:	No special precautions required.

15. Regulatory information

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

Water contaminating class (Germany)	:	WGK 2water endangering

15.2 Chemical safety assessment

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

16. Other information

Full text of H-Statements referred to under sections 2 and 3.

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Further information

In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration >= 1.0% due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

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According to Regulation (EC) No. 1907/2006 the information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

Emergency telephone number

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Bulgaria	+359 2 9154 409 (N. I. Pirogov). poison_centre@mail.orbitel.bg
Croatia	(+385 1) 2348342
Czech Republic	+420 224 919 293 / +420 224 915 402
Denmark	+45 82 12 12 12
Estonia	16662 (National), International (+372) 626 93 90
Finland	+358 9 471977
France	+ 33 (0)1 45 42 59 59
Germany	+31 13 4642 211
Greece	+31 13 4642 211
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Ireland	+353 1 8092566 / +353 1 8379964
Italy	+39 06 68593726
Latvia	+371 67042473
Lithuania	+370 5 236 20 52 or +370 687 53378
Luxembourg	+352 8002 5500
Malta	+356 21224071
Netherlands	+31 30 2748888 (Only for the purpose of informing medical personnel in cases of acute intoxications).
Norway	+47 22 59 13 00
Poland	+31 13 4642 211
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Romania	+31 13 4642 211
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1. Short title of Exposure Scenario: General exposures

Main User Groups	:	**SU 3:** Industrial uses: Uses of substances as such or in preparations at industrial sites
Sector of use	:	**SU 3, SU 10:** Industrial uses: Uses of substances as such or in preparations at industrial sites, Formulation
Process category	:	**PROC1:** Use in closed process, no likelihood of exposure **PROC2:** Use in closed, continuous process with occasional controlled exposure **PROC3:** Use in closed batch process (synthesis or formulation) **PROC5:** Mixing or blending in batch processes for formulation of preparations and articles (multistage and/ or significant contact) **PROC8a:** Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities **PROC8b:** Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities **PROC9:** Transfer of substance or preparation into small containers (dedicated filling line, including weighing) **PROC15:** Use as laboratory reagent
Environmental release category	:	**ERC2:** Formulation of preparations

2.1 Contributing scenario controlling environmental exposure for: ERC2

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

Daily amount per site	:	252 kg (Large/medium site)
Annual amount per site	:	63000 kg (Large/medium site)
Daily amount per site	:	30 kg (Small site)
Annual amount per site	:	7550 kg (Small site)

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Environment factors not influenced by risk management

Flow rate	:	18.000 m3/d

Other given operational conditions affecting environmental exposure

Continuous use/release		
Number of emission days per year	:	250
Emission or Release Factor: Air	:	2,5 %
Emission or Release Factor: Soil	:	0 %
Remarks	:	Large/medium site, Small site
Emission or Release Factor: Water	:	0,5 %
Remarks	:	Small site
Emission or Release Factor: Water	:	0,2 %
Remarks	:	Large site

Technical conditions and measures / Organizational measures

Water :

The residue present in mixing vessels before washing is minimized in order to reduce the loss of fragrance compound to waste water during cleaning of the vessels. (Effectiveness:)
Release of substance from empty containers / packaging material and from contaminated material to water and soil is controlled, e. g. by:
- recycling
- dedicated use without cleaning
- specialized cleaning by contractors
- discharge of empty containers and containers containing residues as hazardous waste
- discharge of materials used to clean up spills as hazardous waste.
(Effectiveness:)
Measures are taken to prevent emission to surface water in case of spills / incidents, e. g.:
- Closed sinks/ basins to prevent discharge to waste- and/or surface water (E11.01)
- Hard impervious surfaced areas (E11.02)
- Isolated drainage to prevent discharge to soil (E11.03)
(Effectiveness:)

Conditions and measures related to municipal sewage treatment plant

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Type of Sewage Treatment Plant	:	Municipal sewage treatment plant
Flow rate of sewage treatment plant effluent	:	2.000 m3/d
Effectiveness (of a measure)	:	62,7 %
Sludge Treatment	:	Disposal

2.2 Contributing scenario controlling worker exposure for: PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, 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)	:	Liquid substance

Frequency and duration of use

Frequency of use	:	Up to 8 hours/day

Human factors not influenced by risk management

Exposed skin area	:	One hand face only (240 cm2)(PROC1, PROC3, PROC15)
Exposed skin area	:	Two hands face (480 cm2)(PROC2, PROC5, PROC8b)
Exposed skin area	:	Two hands (960 cm2)(PROC8a)

Other operational conditions affecting workers exposure

Outdoor / Indoor	:	Indoor

Organisational measures to prevent /limit releases, dispersion and exposure

Assumes a good basic standard of occupational hygiene is implemented., Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted., Assumes use at not more than 20°C above ambient temperature.

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

Wear chemically resistant gloves (tested to EN374) in combination with intensive management supervision controls.

3. Exposure estimation and reference to its source

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Environment

Contributing Scenario	Exposure Assessment Method	Specific conditions	Compartment	Value type	Level of Exposure	Risk characterisation ratio (PEC/PNEC):
ERC2	EUSES	Large/medium site	Fresh water		0,151kg/day	0,989
ERC2	EUSES	Large/medium site	Fresh water sediment		0,151kg/day	0,938
ERC2	EUSES	Large/medium site	Marine water		0,151kg/day	1
ERC2	EUSES	Large/medium site	Marine sediment		0,151kg/day	0,471
ERC2	EUSES	Large/medium site	Air		0,151kg/day	
ERC2	EUSES	Large/medium site	Soil		0,025kg/day	0,129
ERC2	EUSES	Small site	Fresh water		0,151kg/day	0,9
ERC2	EUSES	Small site	Fresh water sediment		0,151kg/day	0,852
ERC2	EUSES	Small site	Marine water		0,151kg/day	1
ERC2	EUSES	Small site	Marine sediment		0,151kg/day	0,471
ERC2	EUSES	Small site	Air		0,018kg/day	
ERC2	EUSES	Small site	Soil		0,003kg/day	0,129

Workers

Contributing Scenario	Exposure Assessment Method	Specific conditions	Value type	Level of Exposure	Risk characterisation ratio (PEC/PNEC):
PROC1	Advanced REACH tool		Inhalation, systemic, long-term	0,098 mg/m3	0,056
PROC1	Risk of derm		Dermal, local, acute	3,18 µg/cm2	0,031
PROC1	ECETOC TRA		Dermal, systemic, long-term	0,343 mg/kg bw/day	0,198
PROC2	Advanced REACH tool		Inhalation, systemic, long-term	0,56 mg/m3	0,318
PROC2	Risk of derm		Dermal, local, acute	3,18 µg/cm2	0,031
PROC2	ECETOC TRA		Dermal, systemic, long-	0,027 mg/kg bw/day	0,016

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			term		
PROC3	Advanced REACH tool		Inhalation, systemic, long-term	0,55 mg/m3	0,312
PROC3	Risk of derm		Dermal, local, acute	0,064 µg/cm2	0,0006
PROC3	ECETOC TRA		Dermal, systemic, long-term	0,007 mg/kg bw/day	0,004
PROC5	Advanced REACH tool	Mixing, Transfer and manual filling	Inhalation, systemic, long-term	0,63 mg/m3	0,358
PROC5	Advanced REACH tool	Weighing and mixing	Inhalation, systemic, long-term	0,18 mg/m3	0,102
PROC5	Risk of derm		Dermal, local, acute	1,9 µg/cm2	0,019
PROC5	ECETOC TRA		Dermal, systemic, long-term	0,274 mg/kg bw/day	0,158
PROC8a	Advanced REACH tool	Discharging of vessels, pumping	Inhalation, systemic, long-term	0,54 mg/m3	0,307
PROC8a	Advanced REACH tool	Washing equipment	Inhalation, systemic, long-term	0,13 mg/m3	0,074
PROC8a	Risk of derm	Discharging of vessels, pumping	Dermal, local, acute	43 µg/cm2	0,425
PROC8a	Risk of derm	Washing equipment	Dermal, local, acute	9,6 µg/cm2	0,095
PROC8a	ECETOC TRA	Discharging of vessels, pumping	Dermal, systemic, long-term	0,069 mg/kg bw/day	0,158
PROC8a	ECETOC TRA	Washing equipment	Dermal, systemic, long-term	0,274 mg/kg bw/day	0,04
PROC8b	Advanced REACH tool		Inhalation, systemic, long-term	0,18 mg/m3	0,102
PROC8b	Risk of derm		Dermal, local, acute	15,5 µg/cm2	0,153
PROC8b	ECETOC TRA		Dermal, systemic, long-term	0,317 mg/kg bw/day	0,079
PROC15	Advanced REACH tool		Inhalation, systemic, long-term	0,057 mg/m3	0,032
PROC15	Risk of derm		Dermal, local, acute	30 µg/cm2	0,0003
PROC15	ECETOC TRA		Dermal, systemic, long-term	0,007 mg/kg bw/day	0,004

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

As a downstream user your main obligations under REACH are to:

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1. Check if your use is covered by the exposure scenario(s). If this is not the case, you can communicate with your supplier with the aim of having your use covered by an exposure scenario or you may develop your own chemical safety report;

2.a. (Workers) Follow the instructions in this safety data sheet and the conditions of use indicated in the exposure scenario(s) in section 2.2. However, if you have another combination of operational conditions (OCs) and/or risk management measures (RMMs) which allow you to achieve the same level of safety (RCRs <1) you can use scaling to demonstrate that you are in compliance. If scaling is not possible or still results in RCRs >1 then you should implement the OCs and RMMs recommended in this exposure scenario or contact your Supplier in case you need further support;

2.b. (Environment) Follow the instructions in this safety data sheet and check if your daily and annual amounts used are below the default maximum values indicated in section 2.1. In case you are above the indicated values you can use scaling to demonstrate that you are in compliance, e.g. by replacing the default figure for the river and/or sewage treatment plant flow rates with the actual rates. Background information on PEC Regional freshwater is 5.368E-5 mg/L. If scaling is not possible or still results in RCRs >1, then you should contact your Supplier for further support;

3. Contact your Supplier if you have new information on the hazard of the substance or mixture or if you believe that the risk management measures are not appropriate;

4. Provide your own downstream users with information on hazards, safe conditions of use and appropriate risk management advice for your mixtures if you are a formulator.

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