

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

**Version / Revision**  
**Supersedes Version**

5.03  
5.02\*\*\*

**Revision Date**  
**Issuing date**

15-Mar-2022  
15-Mar-2022

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

### 1.1. Product identifier

**Identification of the substance/preparation**

**Isopropylamine**

**CAS-No** 75-31-0  
**EC No.** 200-860-9  
**Registration number (REACH)** 01-2119463274-39

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

**Identified uses** Formulation  
**Uses advised against** None

### 1.3. Details of the supplier of the safety data sheet

**Company/Undertaking Identification** **OQ Chemicals GmbH**  
Rheinpromenade 4A  
D-40789 Monheim  
Germany

**Product Information** Product Stewardship  
FAX: +49 (0)208 693 2053  
email: sc.psq@oq.com

### 1.4. Emergency telephone number

**Emergency telephone number** +44 (0) 1235 239 670 (UK)  
available 24/7  
**National emergency telephone number** National Poisons Information Centre  
+353 (0)1 809 2166  
available to the public 8 am - 10 pm  
+353 (0)1 809 2566  
available 24/7 for medical professionals

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**This substance is classified based on Directive 1272/2008/EC and its amendments (CLP Regulation)**

Flammable liquid Category 1, H224  
Acute oral toxicity Category 3, H301  
Acute dermal toxicity Category 3, H311  
Acute inhalation toxicity Category 3, H331  
Skin corrosion/irritation Category 2, H315  
Serious eye damage/eye irritation Category 2, H319  
Target Organ Systemic Toxicant - Single exposure Category 3, H335

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

**Version / Revision**

**5.03**

In addition to the CLP classification based on OQ data this product should also be regarded as:  
Skin corrosion/irritation: category 1A-1C

## Additional information

For full text of Hazard- and EU Hazard-statements see SECTION 16.

## 2.2. Label elements

Labelling according to Regulation 1272/2008/EC and its amendments (CLP Regulation).

### Hazard pictograms



### Signal word

**Danger**

### Hazard statements

H224: Extremely flammable liquid and vapour.  
H301: Toxic if swallowed.  
H311: Toxic in contact with skin.  
H331: Toxic if inhaled.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.

### Precautionary statements

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233: Keep container tightly closed.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301 + P330: IF SWALLOWED: Rinse mouth  
P321: Specific treatment: IF ON SKIN: Wash off with 3% acetic acid followed by large amounts of plain water for at least 5 min as a final step.  
P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a POISON CENTER/doctor.  
P403 + P235: Store in a well ventilated place. Keep cool.

## 2.3. Other hazards

Vapours may form explosive mixture with air

Vapour is heavier than air and can travel considerable distance to a source of ignition and flashback

Components of the product may be absorbed into the body by inhalation, ingestion and through the skin

### PBT and vPvB assessment

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

## SECTION 3: Composition / information on ingredients

### 3.1. Substances

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

Component	CAS-No	REACH-No	1272/2008/EC	Concentration (%)
Isopropylamine	75-31-0	01-2119463274-39	Flam. Liq. 1; H224 Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335	> 99,7

For full text of Hazard- and EU Hazard-statements see SECTION 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation

Keep at rest. Aerate with fresh air. Call a physician immediately. Symptoms of poisoning may develop many hours after exposure.

#### Skin

Wash off with 3% acetic acid followed by large amounts of plain water for at least 5 min as a final step. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

#### Eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

#### Ingestion

Call a physician immediately. Do not induce vomiting without medical advice.

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

#### Main symptoms

shortness of breath, convulsions, cough, hypertensive effect, narcosis, unconsciousness, discomfort, nausea.

#### Special hazard

Stomach perforation, Lung oedema, Pneumonia, Dermatitis.

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

#### General advice

Remove contaminated, soaked clothing immediately and dispose of safely. First aider needs to protect himself.

Treat as an alkaline substance (similar to ammonia). If ingested, irrigate the stomach. Treat skin and mucous membranes with antihistamine and corticoids. In case of lung irritation, first treatment with cortisone spray. Symptoms may be delayed. Later control for pneumonia and lung oedema.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

alcohol-resistant foam, dry chemical, carbon dioxide (CO<sub>2</sub>), water spray

#### Unsuitable Extinguishing Media

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

Do not use a solid water stream as it may scatter and spread fire.

## 5.2. Special hazards arising from the substance or mixture

Under conditions giving incomplete combustion, hazardous gases produced may consist of:

carbon monoxide (CO)

carbon dioxide (CO<sub>2</sub>)

nitrogen oxides (NO<sub>x</sub>)

hydrogen cyanide (hydrocyanic acid)

Combustion gases of organic materials must in principle be graded as inhalation poisons

Vapour is heavier than air and can travel considerable distance to a source of ignition and flashback

Vapours may form explosive mixture with air

## 5.3. Advice for firefighters

### Special protective equipment for firefighters

Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.

### Precautions for firefighting

Cool containers / tanks with water spray. Water run-off and vapor cloud may be corrosive. Dike and collect water used to fight fire. Keep people away from and upwind of fire.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: For personal protective equipment see section 8. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Keep away from heat and sources of ignition.

For emergency responders: Personal protection see section 8.

### 6.2. Environmental precautions

Prevent further leakage or spillage. Do not discharge product into the aquatic environment without pretreatment (biological treatment plant).

### 6.3. Methods and material for containment and cleaning up

#### Methods for containment

Stop the flow of material, if possible without risk. Dike spilled material, where this is possible.

#### Methods for cleaning up

Soak up with inert absorbent material. DO NOT use combustible materials such as sawdust. Keep in suitable, closed containers for disposal. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. Dispose of in accordance with local regulations. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

### 6.4. Reference to other sections

For personal protective equipment see section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

Further info may be available in the appropriate Exposure scenarios in the annex to this SDS.

## Advice on safe handling

Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Do not use compressed air for filling, discharging or handling. Refill and handle product only in closed system. Provide sufficient air exchange and/or exhaust in work rooms.

## Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

## Advice on the protection of the environment

See Section 8: Environmental exposure controls.

## Incompatible products

acids  
Halogenated hydrocarbon  
strong oxidizing agents  
acid anhydrides  
acid chlorides

## 7.2. Conditions for safe storage, including any incompatibilities

### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). In case of fire, emergency cooling with water spray should be available. Ground and bond containers when transferring material. Vapour is heavier than air and can travel considerable distance to a source of ignition and flashback. Vapours may form explosive mixture with air. The pressure in sealed containers can increase under the influence of heat.

### Technical measures/Storage conditions

Keep containers tightly closed in a cool, well-ventilated place. Handle and open container with care. Handle under nitrogen, protect from moisture. Containers, storage tanks or drums are having temperature dependent pressure. Vessels with higher temperature must be depressurised into vent gas systems or handled under ventilation.

### Suitable material

mild steel, stainless steel

### Unsuitable material

Aluminium, copper, zinc, Tin, lead, including their alloys

### Temperature class

T2

## 7.3. Specific end use(s)

Formulation

For specific end use information see the annex of this safety data sheet

## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

#### Exposure limits European Union

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

No exposure limits established

## Exposure limits Ireland

### Ireland OELs

Component	TWA (mg/m <sup>3</sup> )	TWA (ppm)	STEL (mg/m <sup>3</sup> )	STEL (ppm)	Skin Absorption	Sensitizer
Isopropylamine CAS: 75-31-0	12	5	24	10		

### Notes

For details and further information please refer to the original regulation.

### DNEL & PNEC

#### Isopropylamine, CAS: 75-31-0

##### Workers

<b>DN(M)EL - long-term exposure - systemic effects - Inhalation</b>	10 mg/m <sup>3</sup>
<b>DN(M)EL - acute / short-term exposure - systemic effects - Inhalation</b>	Medium hazard (no threshold derived) <sup>***</sup>
<b>DN(M)EL - long-term exposure - local effects - Inhalation</b>	12 mg/m <sup>3</sup>
<b>DN(M)EL - acute / short-term exposure - local effects - Inhalation</b>	24 mg/m <sup>3</sup>
<b>DN(M)EL - long-term exposure - systemic effects - Dermal</b>	1.9 <sup>***</sup> mg/kg bw/day
<b>DN(M)EL - acute / short-term exposure - systemic effects - Dermal</b>	Medium hazard (no threshold derived) <sup>***</sup>
<b>DN(M)EL - long-term exposure - local effects - Dermal</b>	High hazard (no threshold derived)
<b>DN(M)EL - acute / short-term exposure - local effects - Dermal</b>	High hazard (no threshold derived)
<b>DN(M)EL - local effects - eyes</b>	Medium hazard (no threshold derived) <sup>***</sup>

##### General population

<b>DN(M)EL - long-term exposure - systemic effects - Inhalation</b>	No hazard identified <sup>***</sup>
<b>DN(M)EL - acute / short-term exposure - systemic effects - Inhalation</b>	No hazard identified
<b>DN(M)EL - long-term exposure - local effects - Inhalation</b>	No hazard identified <sup>***</sup>
<b>DN(M)EL - acute / short-term exposure - local effects - Inhalation</b>	No hazard identified <sup>***</sup>
<b>DN(M)EL - long-term exposure - systemic effects - Dermal</b>	No hazard identified
<b>DN(M)EL - acute / short-term exposure - systemic effects - Dermal</b>	No hazard identified
<b>DN(M)EL - long-term exposure - local effects - Dermal</b>	No hazard identified
<b>DN(M)EL - acute / short-term exposure - local effects - Dermal</b>	No hazard identified
<b>DN(M)EL - long-term exposure - systemic effects - Oral</b>	No hazard identified <sup>***</sup>
<b>DN(M)EL - acute / short-term exposure - systemic effects - Oral</b>	No hazard identified <sup>***</sup>
<b>DN(M)EL - local effects - eyes</b>	No hazard identified

##### Environment

<b>PNEC aqua - freshwater</b>	19 µg/l
<b>PNEC aqua - marine water</b>	1,9 µg/l
<b>PNEC aqua - intermittent releases</b>	0,19 mg/l

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

**Version / Revision**

5.03

<b>PNEC STP</b>	10*** mg/l
<b>PNEC sediment - freshwater</b>	161,5*** µg/kg dw
<b>PNEC sediment - marine water</b>	16,15*** µg/kg dw
<b>PNEC Air</b>	No hazard identified
<b>PNEC soil</b>	21,15*** mg/kg
<b>Secondary poisoning</b>	No potential for bioaccumulation

## 8.2. Exposure controls

### Special adaptations (REACH)

Not applicable.

### Appropriate Engineering controls

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

### Personal protective equipment

#### General industrial hygiene practice

Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

#### Eye protection

Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.

Equipment should conform to EN 166

#### Hand protection

Wear protective gloves. Recommendations are listed below. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

<b>Suitable material</b>	butyl-rubber
<b>Evaluation</b>	according to EN 374: level 2
<b>Glove thickness</b>	approx 0,3 mm
<b>Break through time</b>	approx 20 min

<b>Suitable material</b>	polyvinylchloride
<b>Evaluation</b>	Information derived from practical experience
<b>Glove thickness</b>	approx 0,8 mm

#### Skin and body protection

Impervious clothing. Wear face-shield and protective suit for abnormal processing problems.

#### Respiratory protection

Respirator with K- filter. Full mask with above mentioned filter according to producers using requirements or self-contained breathing apparatus. Equipment should conform to EN 136 or EN 140 and EN 143.

#### Environmental exposure controls

Use product only in closed system. If leakage can not be prevented, the substance needs to be suck off at the emersion point, if possible without danger. Observe the exposure limits, clean exhaust air if needed. If recycling is



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

not practicable, dispose of in compliance with local regulations. Inform the responsible authorities in case of leakage into the atmosphere, or of entry into waterways, soil or drains.

## Additional advice

Further details on substance data can be found in the registration dossier under the following link: <http://echa.europa.eu/information-on-chemicals/registered-substances>. For specific exposure controls see the annex to this safety data sheet.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	liquid
<b>Colour</b>	colourless
<b>Odour</b>	ammonia-like
<b>Odour threshold</b>	1,2 ppm
<b>pH</b>	13,1 (50 g/l in water @ 25 °C (77 °F)) DIN 19268
<b>Melting point/range</b>	< -90 °C (Pour point) @ 1013 hPa
<b>Method</b>	DIN ISO 3016
<b>Boiling point/range</b>	32 °C @ 1013 hPa
<b>Method</b>	OECD 103
<b>Flash point</b>	<= -25 °C @ 1013 hPa
<b>Method</b>	closed cup, ISO 2719
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	Does not apply, the substance is a liquid
<b>Lower explosion limit</b>	2 Vol %
<b>Upper explosion limit</b>	11,5 Vol %

#### Vapour pressure

Values [hPa]	Values [kPa]	Values [atm]	@ °C	@ °F	Method
631	63,1	0,623	20	68	DIN EN 13016-2
770	77,3	0,763	25	77	DIN EN 13016-2

**Vapour density** 2,04 (Air = 1) @ 20 °C (68 °F)

#### Relative density

Values	@ °C	@ °F	Method
0,6871	20	68	DIN 51757

<b>Solubility</b>	miscible, in water, OECD 105
<b>log Pow</b>	-0,5 @ 25 °C (77 °F) OECD 117
<b>Autoignition temperature</b>	355 °C @ 1016 hPa
<b>Method</b>	DIN 51794
<b>Decomposition temperature</b>	No data available
<b>Viscosity</b>	0,47 mm <sup>2</sup> /s @ 20°C
<b>Method</b>	OECD 114, kinematic
<b>Explosive properties</b>	Does not apply, substance is not explosive. There are no chemical groups associated with explosive properties
<b>Oxidizing properties</b>	Does not apply, substance is not oxidising. There are no chemical groups associated with oxidizing properties

### 9.2. Other information

<b>Molecular weight</b>	59,11
<b>Molecular formula</b>	C <sub>3</sub> H <sub>9</sub> N



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

**Version / Revision**

5.03

**log Koc** 1,64 OECD 106 read across  
**Dissociation constant** pKa 10,8 @ 23,5 °C (74,3 °F) OECD 112  
**Refractive index** 1,373 @ 20 °C  
**Surface tension** 68,5 mN/m (1 g/l @ 20°C (68°F)), OECD 115  
hygroscopic.

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

The reactivity of the product corresponds to the typical reactivity shown by the substance group as described in any text book on organic chemistry.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

Vapours may form explosive mixture with air.

### 10.4. Conditions to avoid

Avoid contact with heat, sparks, open flame and static discharge. Avoid any source of ignition.

### 10.5. Incompatible materials

acids, strong oxidizing agents, halogenated hydrocarbon, acid anhydrides, acid chlorides.

### 10.6. Hazardous decomposition products

No decomposition if stored and applied as directed. If heated to thermal decomposition the following decomposition products may occur depending on the conditions. carbon monoxide (CO). nitrogen oxides (NOx). cyanides. nitric acid. nitriles.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Likely routes of exposure** Ingestion, Inhalation, Eye contact, Skin contact

<b>Acute toxicity</b>				
<b>Isopropylamine (75-31-0)</b>				
Routes of Exposure	Endpoint	Values	Species	Method
Oral	LD50	< 173 mg/kg	rat, male	OECD 425
Dermal	LD50	> 400 mg/kg	rat, male/female	OECD 402
Inhalative	LC50	8,7 mg/l (4h)	rat, male/female	OECD 403

#### **Isopropylamine, CAS: 75-31-0**

##### **Assessment**

The available data lead to the classification given in section 2

##### **Irritation and corrosion**

##### **Isopropylamine (75-31-0)**

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

Target Organ Effects	Species	Result	Method	
Skin	rabbit	corrosive	OECD 404	3 min
Eyes	rabbit	corrosive	OECD 405	24h
Respiratory tract	mouse	RD50: 157 ppm	ASTM 981-84	15 min

## **Isopropylamine, CAS: 75-31-0**

### **Assessment**

The available data lead to the classification given in section 2

### **Sensitization**

#### **Isopropylamine (75-31-0)**

Target Organ Effects	Species	Evaluation	Method	
Skin	guinea pig	not sensitizing	OECD 406	10 %, aqueous solution

## **Isopropylamine, CAS: 75-31-0**

### **Assessment**

Based on available data, the classification criteria are not met for:

Skin sensitization

For respiratory sensitization, no data are available

### **Subacute, subchronic and prolonged toxicity**

#### **Isopropylamine (75-31-0)**

Type	Dose	Species	Method	
Subchronic toxicity	NOAEC: 500 mg/m <sup>3</sup> (90 d)	rat, male/female	OECD 413	Inhalation

## **Isopropylamine, CAS: 75-31-0**

### **Assessment**

Based on available data, the classification criteria are not met for:

STOT RE

### **Carcinogenicity, Mutagenicity, Reproductive toxicity**

#### **Isopropylamine (75-31-0)**

Type	Dose	Species	Evaluation	Method	
Developmental Toxicity	NOAEC: 1000 mg/m <sup>3</sup>	rat		OECD 414	Teratogenicity Inhalation
Developmental Toxicity	NOAEC: 500 mg/m <sup>3</sup>	rat		OECD 414	Maternal toxicity Inhalation
Mutagenicity		mouse lymphoma cells	negative (with metabolic activation)	OECD 476 (Mammalian Gene Mutation)	In vitro study
Mutagenicity		mouse lymphoma cells	negative (without metabolic activation)	OECD 476 (Mammalian Gene Mutation)	In vitro study
Mutagenicity		Salmonella typhimurium	negative (with metabolic activation)	OECD 471 (Ames)	In vitro study
Mutagenicity		Salmonella typhimurium	negative (without metabolic activation)	OECD 471 (Ames)	In vitro study
Mutagenicity		human lymphocytes	negative (with metabolic activation)	OECD 473 (Chromosomal Aberration)	In vitro study

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

**Version / Revision** 5.03

Mutagenicity		human lymphocytes	negative (without metabolic activation)	OECD 473 (Chromosomal Aberration)	In vitro study
Reproductive toxicity	NOAEC: 500 mg/m <sup>3</sup>	rat, parental		OECD 415	Inhalation
Reproductive toxicity	NOAEC: 500 mg/m <sup>3</sup>	rat, 1. Generation, male/female		OECD 415	Inhalation

## **Isopropylamine, CAS: 75-31-0**

### **CMR Classification**

The available data on CMR properties are summarized in the table above. They do not indicate a classification into categories 1A or 1B

### **Evaluation**

In vitro tests did not show mutagenic effects

Animal testing did not show any effects on fertility

In the absence of specific alerts no cancer testing is required

## **Isopropylamine, CAS: 75-31-0**

### **Main symptoms**

shortness of breath, convulsions, cough, hypertensive effect, narcosis, unconsciousness, discomfort, nausea.

### **Target Organ Systemic Toxicant - Single exposure**

STOT SE

respiratory system

The available data lead to the classification given in section 2

### **Target Organ Systemic Toxicant - Repeated exposure**

Based on available data, the classification criteria are not met for:

STOT RE

### **Other adverse effects**

Components of the product may be absorbed into the body by inhalation, ingestion and through the skin.

### **Note**

Handle in accordance with good industrial hygiene and safety practice. Further details on substance data can be found in the registration dossier under the following link:

<http://echa.europa.eu/information-on-chemicals/registered-substances>.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

<b>Acute aquatic toxicity</b>			
<b>Isopropylamine (75-31-0)</b>			
Species	Exposure time	Dose	Method
Daphnia magna (Water flea)	48h	EC50: 47,4 mg/l	79/831/EEC.C2
Desmodesmus subspicatus	72h	EC50: 18,9 mg/l (Growth rate)	DIN 38412, part 9
Oncorhynchus mykiss (rainbow trout)	96h	LC50: 40 mg/l	OECD 203
Activated sludge (domestic)	30 min	EC50: >1000 mg/l (Growth inhibition)	OECD 209

<b>Long term toxicity</b>				
<b>Isopropylamine (75-31-0)</b>				
Type	Species	Dose	Method	
Aquatic toxicity	Desmodesmus	NOEC: 1,25 mg/l	DIN 38412 / part 9	

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

	subspicatus	(3d) Growth inhibition		
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## 12.2. Persistence and degradability

**Isopropylamine, CAS: 75-31-0**

### Biodegradation

70 - 80 % (28 d), activated sludge, aerobic, domestic, OECD 301 F.

### Abiotic Degradation

#### Isopropylamine (75-31-0)

Type	Result	Method
Hydrolysis	not expected	
Photolysis	No data available	

## 12.3. Bioaccumulative potential

#### Isopropylamine (75-31-0)

Type	Result	Method
log Pow	-0,5 @ 25 °C (77 °F)	measured, OECD 117
BCF	not expected	

## 12.4. Mobility in soil

#### Isopropylamine (75-31-0)

Type	Result	Method
Surface tension	68,5 mN/m (1 g/l @ 20°C (68°F))	OECD 115
Adsorption/Desorption	Koc: 43,2	OECD 106 read across
Distribution to environmental compartments	no data available	

## 12.5. Results of PBT and vPvB assessment

**Isopropylamine, CAS: 75-31-0**

### PBT and vPvB assessment

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

## 12.6. Other adverse effects

**Isopropylamine, CAS: 75-31-0**

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Product Information

Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

**Version / Revision**

**5.03**

statutes and possibilities for disposal.  
Hazardous waste according to European Waste Catalogue (EWC)

## **Uncleaned empty packaging**

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

## **SECTION 14: Transport information**

### ADR/RID

<b>14.1. UN number</b>	UN 1221
<b>14.2. UN proper shipping name</b>	Isopropylamine
<b>14.3. Transport hazard class(es)</b>	3
Subsidiary Risk	8
<b>14.4. Packing group</b>	I
<b>14.5. Environmental hazards</b>	no
<b>14.6. Special precautions for user</b>	
ADR Tunnel restriction code	(C/E)
Classification Code	FC
Hazard Number	338

### ADN

ADN Container

<b>14.1. UN number</b>	UN 1221
<b>14.2. UN proper shipping name</b>	Isopropylamine
<b>14.3. Transport hazard class(es)</b>	3
Subsidiary Risk	8
<b>14.4. Packing group</b>	I
<b>14.5. Environmental hazards</b>	no
<b>14.6. Special precautions for user</b>	
Classification Code	FC
Hazard Number	338

### ICAO-TI / IATA-DGR

<b>14.1. UN number</b>	UN 1221
<b>14.2. UN proper shipping name</b>	Isopropylamine
<b>14.3. Transport hazard class(es)</b>	3
Subsidiary Risk	8
<b>14.4. Packing group</b>	I
<b>14.5. Environmental hazards</b>	no
<b>14.6. Special precautions for user</b>	no data available

### IMDG

<b>14.1. UN number</b>	UN 1221
<b>14.2. UN proper shipping name</b>	Isopropylamine
<b>14.3. Transport hazard class(es)</b>	3

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



Isopropylamine  
10350

Version / Revision

5.03

Subsidiary Risk	8
<b>14.4. Packing group</b>	I
<b>14.5. Environmental hazards</b>	no
<b>14.6. Special precautions for user</b>	
EmS	F-E, S-C
<b>14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	
Product name	Isopropylamine
Ship type	2
Pollution category	Y

## SECTION 15: Regulatory information

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

#### Regulation 1272/2008, Annex VI

##### Isopropylamine, CAS: 75-31-0

<b>Classification</b>	Flam. Liq. 1; H224 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315
<b>Hazard pictograms</b>	GHS02 Flame GHS07 Exclamation mark
<b>Signal word</b>	Danger
<b>Hazard statements</b>	H224, H319, H335, H315

##### DI 2012/18/EU (Seveso III)

<b>Category</b>	Annex I, part 1: H2 P5a - c; depending on conditions
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##### DI 1999/13/EC (VOC Guideline)

Component	Status
Isopropylamine CAS: 75-31-0	regulated

#### International Inventories

##### Isopropylamine, CAS: 75-31-0

AICS (AU)  
DSL (CA)  
IECSC (CN)  
EC-No. 2008609 (EU)  
ENCS (2)-131 (JP)  
ISHL (2)-131 (JP)  
KECI KE-29257 (KR)  
INSQ (MX)  
PICCS (PH)  
TSCA (US)

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



Isopropylamine  
10350

Version / Revision

5.03

NZIoC (NZ)  
TCSI (TW)

## 15.2. Chemical safety assessment

The Chemical Safety Report (CSR) has been generated. For Exposure Scenarios see the annex.

## SECTION 16: Other information

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

H224: Extremely flammable liquid and vapour.

H301: Toxic if swallowed.

H311: Toxic in contact with skin.

H331: Toxic if inhaled.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

### Abbreviations

A table of terms and abbreviations can be found under the following link:

[http://echa.europa.eu/documents/10162/13632/information\\_requirements\\_r20\\_en.pdf](http://echa.europa.eu/documents/10162/13632/information_requirements_r20_en.pdf)

### Training advice

For effective first-aid, special training / education is needed.

### Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on OQ owned data and public sources deemed valid or acceptable. The absence of data elements required by OSHA, ANSI or Annex II, Regulation 1907/2006/EC indicates, that no data meeting these requirements is available.

### Further information for the safety data sheet

Changes against the previous version are marked by \*\*\*. Observe national and local legal requirements. For more information, other material safety data sheets or technical data sheets please consult the OQ homepage ([www.chemicals.oq.com](http://www.chemicals.oq.com)).

### Disclaimer

**For industrial use only.** The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. OQ Chemicals makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.

End of Safety Data Sheet

# Annex to the extended Safety Data Sheet (eSDS)

## General information

A quantitative approach used to conclude safe use for:

Environmental compartment

Long-term Systemic effects via inhalation

Long term local hazards via inhalation

Acute local hazards via inhalation



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

A qualitative approach used to conclude safe use for:

Acute systemic hazards via skin  
Acute local hazards via skin  
Long term local hazards via skin  
Acute systemic hazards via skin  
Local hazards via eyes

## Operational conditions and risk management measures

Following operational conditions and risk management measures, are based on qualitative risk characterisation:

Wear suitable face shield.  
Substance/task appropriate gloves  
Full skin coverage with appropriate light-weight barrier material  
Chemical goggles or safety glasses  
Any measure to eliminate exposure should be considered  
Containment of source except for short term exposure (e.g. taking sample)  
Design closed system to allow for easy maintenance  
If possible keep equipment under negative pressure  
Control staff entry to work area  
Ensure all equipment well maintained  
Permit to work for maintenance work  
Regular cleaning of equipment and work area  
Training for staff on good practice  
Procedures and training for emergency decontamination and disposal  
Good standard of personal hygiene  
Recording of any 'near miss' situations  
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.\*\*\*

## Exposure scenario identification

1\*\*\* **Formulation & (re)packing of substances and mixtures\*\*\***

**Exposure estimation and reference to its source**

**Number of the ES** 1\*\*\*

Short title of the exposure scenario

**Formulation & (re)packing of substances and mixtures\*\*\***

## Sector of uses [SU]

SU3: Industrial uses: Uses of substances as such or in preparations at industrial sites

SU10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

## Process categories [PROC]

PROC1: Use in closed process, no likelihood of exposure

PROC2: Use in closed, continuous process with occasional controlled exposure

PROC3: Use in closed batch process (synthesis or formulation)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises

PROC5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)

PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

PROC15: Use as laboratory reagent

## Processes and activities covered by the exposure scenario

Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tableting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

## Further explanations

Industrial use

Assessment tool used:

Chesar 3.5

liquid

Assumes use at not more than 20°C above ambient temperature (unless stated differently)

Covers percentage substance in the product up to 100 % (unless stated differently).

Assumes an advanced standard of occupational Health and Safety Management System\*\*\*

### Number of the contributing scenario

1

### Contributing exposure scenario controlling environmental exposure for ERC 2

## Further specification

assessment tool used:., Chesar 3.5, release factors for (Sp)ERC were modified.\*\*\*

### Amounts used

Daily amount per site: 10 to

Annual amount per site: 1000 to

Fraction of Regional tonnage used locally: 1

### Technical conditions and measures at process level (source) to prevent release

Release fraction to air from process: 2,5%

Release fraction to wastewater from process: 0,025%

Release fraction to soil from process: 0,01%

### Conditions and measures related to municipal sewage treatment plant

Size of industrial sewage treatment plant (m3/d): 2000

The minimum grade of elimination in the sewage plant is (%): 87,74

Do not apply industrial sludge to natural soils

### Number of the contributing scenario

2

### Contributing exposure scenario controlling worker exposure for PROC 1

## Frequency and duration of use

8 h (full shift)

### Other given operational conditions affecting workers exposure

Indoor and outdoor use

### Technical conditions and measures to control dispersion from source towards the worker

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

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

Wear suitable gloves (tested to EN374) and eye protection.

### Number of the contributing scenario

3

### Contributing exposure scenario controlling worker exposure for PROC 2

## Frequency and duration of use

8 h (full shift)

### Other given operational conditions affecting workers exposure

Indoor use

### Technical conditions and measures to control dispersion from source towards the worker

Effectiveness of LEV (local exhaust ventilation): 90 % (inhalative); 90 % (dermal). provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Wear suitable gloves (tested to EN374) and eye protection. Wear respiratory protection (Efficiency: 95 %).

### Number of the contributing scenario

4

### Contributing exposure scenario controlling worker exposure for PROC 3

## Frequency and duration of use

8 h (full shift)

### Other given operational conditions affecting workers exposure

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

Indoor use

**Technical conditions and measures to control dispersion from source towards the worker**

Effectiveness of LEV (local exhaust ventilation): 90 % (inhalative); 90 % (dermal). provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Wear suitable gloves (tested to EN374) and eye protection. Wear respiratory protection (Efficiency: 95 %).

**Number of the contributing scenario**

5

**Contributing exposure scenario controlling worker exposure for PROC 4**

**Frequency and duration of use**

8 h (full shift)

**Other given operational conditions affecting workers exposure**

Indoor use

**Technical conditions and measures to control dispersion from source towards the worker**

Effectiveness of LEV (local exhaust ventilation): 90 % (inhalative); 90 % (dermal). provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Wear respiratory protection (Efficiency: 95 %). Wear suitable gloves (tested to EN374) and eye protection.

**Number of the contributing scenario**

6

**Contributing exposure scenario controlling worker exposure for PROC 5**

**Frequency and duration of use**

8 h (full shift)

**Other given operational conditions affecting workers exposure**

Indoor use

**Technical conditions and measures to control dispersion from source towards the worker**

Effectiveness of LEV (local exhaust ventilation): 90 % (inhalative); 90 % (dermal). provide a good standard of controlled ventilation (5 to 10 air changes per hour) .

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

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Wear respiratory protection (Efficiency: 95 %). Wear suitable gloves (tested to EN374) and eye protection.

**Number of the contributing scenario**

7

**Contributing exposure scenario controlling worker exposure for PROC 8a**

**Frequency and duration of use**

8 h (full shift)

**Other given operational conditions affecting workers exposure**

Indoor use

**Technical conditions and measures to control dispersion from source towards the worker**

Effectiveness of LEV (local exhaust ventilation): 90 % (inhalative); 90 % (dermal). provide a good standard of controlled ventilation (5 to 10 air changes per hour) .

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

Wear suitable gloves and eye/face protection. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Wear respiratory protection (Efficiency: 95 %).

**Number of the contributing scenario**

8

**Contributing exposure scenario controlling worker exposure for PROC 8b**

**Frequency and duration of use**

8 h (full shift)

**Other given operational conditions affecting workers exposure**

Indoor use

**Technical conditions and measures to control dispersion from source towards the worker**

Effectiveness of LEV (local exhaust ventilation): 95 % (inhalative); 95 % (dermal). provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

Wear suitable gloves and eye/face protection. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Wear respiratory protection (Efficiency: 95 %).

**Number of the contributing scenario** 9  
**Contributing exposure scenario controlling worker exposure for PROC 9**

## Product characteristics

Covers percentage substance in the product up to 100 % (unless stated differently)

## Frequency and duration of use

8 h (full shift)

## Other given operational conditions affecting workers exposure

Indoor use

## Technical conditions and measures to control dispersion from source towards the worker

Effectiveness of LEV (local exhaust ventilation): 90 % (inhalative); 90 % (dermal). provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

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

Wear suitable gloves and eye/face protection. Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Wear respiratory protection (Efficiency: 95 %).

**Number of the contributing scenario** 10  
**Contributing exposure scenario controlling worker exposure for PROC 15**

## Product characteristics

Liquid

## Frequency and duration of use

1 h per shift\*\*\*

## Other given operational conditions affecting workers exposure

Indoor use

## Technical conditions and measures to control dispersion from source towards the worker

provide a good standard of controlled ventilation (5 to 10 air changes per hour) . Effectiveness of LEV (local exhaust ventilation): 90 % (inhalative); 90 % (dermal).\*\*\*

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

Wear chemically resistant gloves (tested to EN374) in combination with 'basic' employee training.\*\*\*

**Number of the contributing scenario** 11\*\*\*  
**Contributing exposure scenario controlling worker exposure for PROC 8a\*\*\***

## Product characteristics

Liquid\*\*\*

## Frequency and duration of use

1 h per shift\*\*\*

## Other given operational conditions affecting workers exposure

Indoor use\*\*\*

## Technical conditions and measures to control dispersion from source towards the worker

provide a basic standard of general ventilation (1 to 3 air changes per hour). Effectiveness of LEV (local exhaust ventilation): 90 % (inhalative).\*\*\*

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

Wear respiratory protection (Efficiency: 95 %). Wear chemically resistant gloves (tested to EN374) in combination with specific activity training.\*\*\*

Fresh Water (Pelagic)	PEC: 0,015 mg/l; RCR: 0,806
Fresh Water (Sediment)	PEC: 0.121 mg/kg dw; RCR: 0.751
Marine Water (Pelagic)	PEC: 1.53E-3 mg/l; RCR: 0.806
Marine Water (Sediment)	PEC: 0.012 mg/kg dw; RCR: 0.751
Agricultural Soil	PEC: 3.68E-3 mg/kg dw; RCR: 0.174
Sewage Treatment Plant (Effluent)	PEC: 0,153 mg/l; RCR: 0.015
Man via environment – Inhalation	Concentration in air: 0,019 mg/m <sup>3</sup> ; RCR: 0,011
Man via environment – Oral	Exposure via food consumption: 4,68E-4 mg/kg bw/day; RCR: 0,01
Man via environment - combined routes	RCR: 0,011

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

## Human exposure prediction (oral, dermal, inhalative)

Oral exposure is not expected to occur. EE(inhal): Estimated inhalative exposure [mg/m<sup>3</sup>]. EE(derm): Estimated dermal exposure [mg/kg b.w./d]. Exposure estimates are given for short-term or long-term, systemic or local exposure depending on which lead to more conservative risk characterization ratios. The RMMs described above suffice to control risks for both local and systemic effects.

Proc 1	EE(inhal): 0,069; EE(derm): 6.8E-3
Proc 2	EE(inhal): 0,862; EE(derm): 0,027
Proc 3	EE(inhal): 1,724; EE(derm): 0,014
Proc 4	EE(inhal): 3,448; EE(derm): 0,034
Proc 5	EE(inhal): 3,694; EE(derm): 0,069
Proc 8a	EE(inhal): 3.694; EE(derm): 0.069 - Contributing Scenarios 7 EE(inhal): 12.31; EE(derm): 0.137 - Contributing Scenarios 11***
Proc 8b	EE(inhal): 2,586; EE(derm): 0,034
Proc 9	EE(inhal): 6,896; EE(derm): 0.034
Proc 15	EE(inhal): 14.77; EE(derm): 1.36E-3

## Risk characterisation

RCR(inhal): inhalative risk characterisation ratio; RCR(derm): dermal risk characterisation ratio; total RCR= RCR(inhal) +RCR(derm). Where required local and systemic effects were evaluated both for short-term and long-term exposure. The RCR's given correspond in each case to the most conservative calculated values.

Proc 1	RCR(inhal): 0,01; RCR(derm): 0,01
Proc 2	RCR(inhal): 0,036; RCR(derm): 0,014
Proc 3	RCR(inhal): 0,072; RCR(derm): 0,01
Proc 4	RCR(inhal): 0,144; RCR(derm): 0,018
Proc 5	RCR(inhal): 0,154; RCR(derm): 0,036
Proc 8a	RCR(inhal): 0,154; RCR(derm): 0,036 - Contributing Scenarios 7 RCR(inhal): 0.513; RCR(derm): 0.072 - Contributing Scenarios 11***
Proc 8b	RCR(inhal): 0,108; RCR(derm): 0,018
Proc 9	RCR(inhal): 0,287; RCR(derm): 0,018
Proc 15	RCR(inhal): 0.616; RCR(derm): 0,01

## Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

Usage of release factors allows downstream users to verify in a first approximation, if the combination of local usage and production conditions meets the defined release quantities resulting from this exposure scenario (calculated as M(site) [see amounts used, contributing scenario 1] x release factor [Technical conditions and measures at process level (source) to prevent release; contributing scenario 1])

## associated uses:

Other combinations of operational conditions may also be safe. Please contact OQ in case your local operational conditions differ from the ones described above and you are unsure if they are also safe

## Human exposure prediction (oral, dermal, inhalative)

Oral exposure is not expected to occur. EE(inhal): Estimated inhalative long-term exposure [mg/m<sup>3</sup>]; EE(derm): Estimated dermal long-term exposure [mg/kg b.w./d]. Exposure estimates are given for either short-term or long-term exposure depending on which lead to more conservative risk characterisation ratios. The RMMs described above suffice to control risks for both local and systemic effects.

Proc 1	EE(inhal): 0.025 ; EE(derm): 0.069
Proc 2	EE(inhal): 2.463 ; EE(derm): 0.027
Proc 3	EE(inhal): 6.157 ; EE(derm): 0.007
Proc 4	EE(inhal): 4.926 ; EE(derm): 0.137
Proc 8a	EE(inhal): 7.389 ; EE(derm): 0.027

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended



**Isopropylamine**  
**10350**

Version / Revision

5.03

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Proc 8b	EE(inhal): 3.694 ; EE(derm): 0.137
Proc 9	EE(inhal): 1.231 ; EE(derm): 0.137
Proc 15	EE(inhal): 2.463 ; EE(derm): 0.007

## Risk characterisation

RCR(inhal): inhalative risk characterisation ratio; RCR(derm): dermal risk characterisation ratio; total RCR= RCR(inhal) +RCR(derm). Where required local and systemic effects were evaluated both for short-term and long-term exposure. The RCR's given correspond in each case to the most conservative calculated values.

Proc 1	RCR(inhal): 0.002 ; RCR(derm): 0.014
Proc 2	RCR(inhal): 0.205 ; RCR(derm): 0.006
Proc 3	RCR(inhal): 0.513 ; RCR(derm): 0.001
Proc 4	RCR(inhal): 0.411 ; RCR(derm): 0.029
Proc 8a	RCR(inhal): 0.616 ; RCR(derm): 0.006
Proc 8b	RCR(inhal): 0.308 ; RCR(derm): 0.029
Proc 9	RCR(inhal): 0.103 ; RCR(derm): 0.029
Proc 15	RCR(inhal): 0.205 ; RCR(derm): 0.001

## Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

Usage of release factors allows downstream users to verify in a first approximation, if the combination of local usage and production conditions meets the defined release quantities resulting from this exposure scenario (calculated as  $M(\text{site})$  [see amounts used, contributing scenario 1] x release factor [Technical conditions and measures at process level (source) to prevent release; contributing scenario 1])

## associated uses:

Other combinations of operational conditions may also be safe. Please contact OQ in case your local operational conditions differ from the ones described above and you are unsure if they are also safe