

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - France

## SAFETY DATA SHEET

ISOMAP P23 BASE YELLOW

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

#### 1.1 Product identifier

**Product name** : ISOMAP P23 BASE YELLOW  
**SDS code** : 12023100B

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

Identified uses
<input checked="" type="checkbox"/> Use at industrial site - Application of primers and specialty coatings in the construction of aerospace and aeronautical parts, including aeroplanes/helicopters, spacecraft, satellites, launchers, engines, and for the maintenance of such constructions for the aerospace sector in which any of the following key functionalities is required: corrosion resistance, adhesion of paint/ compatibility with binder system, layer thickness, chemical resistance, temperature resistance (thermal shock resistance), compatibility with substrate or processing temperatures.
Uses advised against
All other uses

**Product use** : Solvent borne primer

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

MAPAERO SAS  
10, Avenue de la Rijole CS30098  
09103 PAMIERS Cedex  
France

**e-mail address of person responsible for this SDS** : PSRA\_PAMIERS@akzonobel.com

#### 1.4 Emergency telephone number

##### National advisory body/Poison Center

**Telephone number** : +33 01 40 05 48 48

##### Supplier

**Telephone number** : +33 (0)5 34 01 34 01  
+33 (0)5 61 60 23 30

**Hours of operation** :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225  
Acute Tox. 4, H332  
Eye Irrit. 2, H319  
Skin Sens. 1, H317  
Muta. 1B, H340  
Carc. 1A, H350  
Repr. 2, H361  
STOT SE 3, H335  
STOT SE 3, H336  
Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** :

Danger

**Hazard statements** :

Highly flammable liquid and vapor.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Harmful if inhaled.  
May cause respiratory irritation.  
May cause drowsiness or dizziness.  
May cause genetic defects.  
May cause cancer.  
Suspected of damaging fertility or the unborn child.  
Toxic to aquatic life with long lasting effects.

#### Precautionary statements

**Prevention** :

Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapor.

**Response** :

Collect spillage. IF exposed or concerned: Get medical advice or attention. IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

**Storage** :

Store in a well-ventilated place. Keep container tightly closed. Keep cool.

**Disposal** :

Dispose of contents and container in accordance with all local, regional, national and international regulations.

## SECTION 2: Hazards identification

<b>Hazardous ingredients</b>	: Butanone strontium chromate 2-methoxy-1-methylethyl acetate Reaction mass of ethylbenzene and xylene barium chromate Fatty acids, C14-18 and C16-18-unsatd., maleated maleic anhydride
<b>Supplemental label elements</b>	: Repeated exposure may cause skin dryness or cracking. Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
<b>REACH Authorization number</b>	: REACH/20/7/5, REACH/20/7/15
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: Restricted to professional users.
<b>Special packaging requirements</b>	
<b>Containers to be fitted with child-resistant fastenings</b>	: Not applicable.
<b>Tactile warning of danger</b>	: Not applicable.

### 2.3 Other hazards

<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
<b>Other hazards which do not result in classification</b>	: None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Butanone	REACH #: 01-2119457290-43 EC: 201-159-0 CAS: 78-93-3 Index: 606-002-00-3	≥15 - ≤20	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	-	[1] [2]
strontium chromate	REACH #: 01-2119548391-39 EC: 232-142-6 CAS: 7789-06-2	≥15 - ≤20	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1A, H350 Repr. 2, H361 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (dusts and mists)] = 0.27 mg/l M [Acute] = 1 M [Chronic] = 1	[1] [2]
2-methoxy-1-methylethyl acetate	REACH #: 01-2119475791-29	≥15 - ≤20	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]

Date of issue/Date of revision : 8-3-2023 Version : 3

Date of previous issue : 28-10-2022

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### SECTION 3: Composition/information on ingredients

4-methylpentan-2-one	EC: 203-603-9 CAS: 108-65-6				
	EC: 203-550-1 CAS: 108-10-1 Index: 606-004-00-4	≥5 - ≤10	Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H336 EUH066	ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
Reaction mass of ethylbenzene and xylene	REACH #: 01-2119488216-32 EC: 905-588-0	≥5 - ≤10	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	ATE [Dermal] = 1100 mg/kg ATE [Inhalation (gases)] = 5000 ppm	[1] [2]
cyclohexanone	EC: 203-631-1 CAS: 108-94-1 Index: 606-010-00-7	≥1 - ≤3	Flam. Liq. 3, H226 Acute Tox. 4, H332	ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
cyclohexanone	REACH #: 01-2119453616-35 EC: 203-631-1 CAS: 108-94-1 Index: 606-010-00-7	≤1	Flam. Liq. 3, H226 Acute Tox. 4, H332	ATE [Inhalation (vapours)] = 11 mg/l	[1] [2]
barium chromate	REACH #: 01-2120769889-24 EC: 233-660-5 CAS: 10294-40-3	≤1	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Resp. Sens. 1, H334 Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1A, H350 Repr. 2, H361 STOT RE 1, H372 (kidneys, respiratory tract)	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (dusts and mists)] = 0.05 mg/l STOT RE 1, H372: C ≥ 10% STOT RE 2, H373: 1% ≤ C < 10%	[1] [2]
Fatty acids, C14-18 and C16-18-unsatd., maleated	CAS: 85711-46-2	≤0.3	Skin Irrit. 2, H315 Skin Sens. 1, H317	-	[1]
maleic anhydride	REACH #: 01-2119463268-32 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	≤0.1	Acute Tox. 4, H302 Skin Corr. 1B, H314 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (respiratory system) (inhalation) EUH071 <b>See Section 16 for the full text of the H statements declared above.</b>	ATE [Oral] = 500 mg/kg Skin Sens. 1, H317: C ≥ 0.001%	[1] [2]

## SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

## SECTION 4: First aid measures

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains strontium chromate, barium salts, Fatty acids, C14-18 and C16-18-unsatd., maleated, maleic anhydride. May produce an allergic reaction.

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

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

- Hazards from the substance or mixture** : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

## SECTION 5: Firefighting measures

**Hazardous combustion products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
halogenated compounds  
metal oxide/oxides

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### 6.3 Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

### 6.4 Reference to other sections

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

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

#### Seveso Directive - Reporting thresholds

##### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne
E2	200 tonne	500 tonne

### 7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

### 8.1 Control parameters

#### Occupational exposure limits



## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
butanone	<p><b>Ministry of Labor (France, 12/2021). Absorbed through skin. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</b>                      STEL: 900 mg/m<sup>3</sup> 15 minutes. Form: Risk for sensitisation                      STEL: 300 ppm 15 minutes. Form: Risk for sensitisation                      TWA: 600 mg/m<sup>3</sup> 8 hours. Form: Risk for sensitisation                      TWA: 200 ppm 8 hours. Form: Risk for sensitisation</p>
strontium chromate	<p><b>Ministry of Labor (France, 12/2021). [compounds of chromium (VI)] Absorbed through skin. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</b>                      TWA: 0.001 mg/m<sup>3</sup>, (as Cr) 8 hours. Form: Risk for sensitisation                      STEL: 0.005 mg/m<sup>3</sup> 15 minutes.</p>
2-methoxy-1-methylethyl acetate	<p><b>Ministry of Labor (France, 10/2016). Absorbed through skin. Notes: Labour Act , Art 4412-149 (Regulatory binding exposure limits)</b>                      STEL: 550 mg/m<sup>3</sup> 15 minutes.                      STEL: 100 ppm 15 minutes.                      TWA: 275 mg/m<sup>3</sup> 8 hours.                      TWA: 50 ppm 8 hours.</p>
4-methylpentan-2-one	<p><b>Ministry of Labor (France, 12/2021). Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</b>                      STEL: 208 mg/m<sup>3</sup> 15 minutes. Form: Risk for sensitisation                      STEL: 50 ppm 15 minutes. Form: Risk for sensitisation                      TWA: 83 mg/m<sup>3</sup> 8 hours. Form: Risk for sensitisation                      TWA: 20 ppm 8 hours. Form: Risk for sensitisation</p>
Reaction mass of ethylbenzene and xylene	<p><b>Ministry of Labor (France, 3/2020). Absorbed through skin. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</b>                      STEL: 442 mg/m<sup>3</sup> 15 minutes. Form: Risk for sensitisation                      STEL: 100 ppm 15 minutes. Form: Risk for sensitisation                      TWA: 221 mg/m<sup>3</sup> 8 hours. Form: Risk for sensitisation                      TWA: 50 ppm 8 hours. Form: Risk for sensitisation</p>
cyclohexanone	<p><b>Ministry of Labor (France, 12/2021). Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</b>                      TWA: 10 ppm 8 hours.                      TWA: 40.8 mg/m<sup>3</sup> 8 hours.                      STEL: 20 ppm 15 minutes.                      STEL: 81.6 mg/m<sup>3</sup> 15 minutes.</p>
cyclohexanone	<p><b>Ministry of Labor (France, 12/2021). Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</b>                      STEL: 81.6 mg/m<sup>3</sup> 15 minutes. Form: Risk for sensitisation                      STEL: 20 ppm 15 minutes. Form: Risk for sensitisation                      TWA: 40.8 mg/m<sup>3</sup> 8 hours. Form: Risk for sensitisation                      TWA: 10 ppm 8 hours. Form: Risk for sensitisation</p>
barium chromate	<p><b>Ministry of Labor (France, 12/2021). [compounds of chromium (VI)] Absorbed through skin. Notes: Binding regulatory limit values (article R. 4412-149 of the Labor Code)</b>                      TWA: 0.001 mg/m<sup>3</sup>, (as Cr) 8 hours. Form: Risk for sensitisation                      STEL: 0.005 mg/m<sup>3</sup> 15 minutes.</p>
maleic anhydride	<p><b>Ministry of Labor (France, 12/2021). Sensitization potential. Notes: Permissible limit values (circulars)</b>                      STEL: 1 mg/m<sup>3</sup> 15 minutes. Form: Risk for sensitisation</p>

## SECTION 8: Exposure controls/personal protection

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects	
butanone	DNEL	Long term Oral	31 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Inhalation	106 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Long term Dermal	412 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Inhalation	600 mg/m <sup>3</sup>	Workers	Systemic	
	DNEL	Long term Dermal	1161 mg/kg bw/day	Workers	Systemic	
strontium chromate	DNEL	Long term Dermal	0.0002 mg/cm <sup>2</sup>	Workers	Local	
	DMEL	Long term Inhalation	0.5 µg/m <sup>3</sup>	Workers	Local	
4-methylpentan-2-one	DNEL	Long term Oral	4.2 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	4.2 mg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	11.8 mg/kg bw/day	Workers	Systemic	
	DNEL	Long term Inhalation	14.7 mg/m <sup>3</sup>	General population	Local	
	DNEL	Long term Inhalation	14.7 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Long term Inhalation	83 mg/m <sup>3</sup>	Workers	Local	
	DNEL	Long term Inhalation	83 mg/m <sup>3</sup>	Workers	Systemic	
	DNEL	Short term Inhalation	155.2 mg/m <sup>3</sup>	General population	Local	
	DNEL	Short term Inhalation	155.2 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Short term Inhalation	208 mg/m <sup>3</sup>	Workers	Local	
	DNEL	Short term Inhalation	208 mg/m <sup>3</sup>	Workers	Systemic	
	Reaction mass of ethylbenzene and xylene	DNEL	Long term Oral	1.6 mg/kg bw/day	General population	Systemic
		DNEL	Long term Inhalation	14.8 mg/m <sup>3</sup>	General population	Systemic
		DNEL	Long term Inhalation	77 mg/m <sup>3</sup>	Workers	Systemic
		DNEL	Long term Dermal	108 mg/kg bw/day	General population	Systemic

**SECTION 8: Exposure controls/personal protection**

cyclohexanone	DNEL	Long term Dermal	180 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	289 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	289 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Dermal	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	1.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	1.5 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	10 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	20 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	20 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	40 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	40 mg/m <sup>3</sup>	Workers	Local
	cyclohexanone	DNEL	Long term Inhalation	40 mg/m <sup>3</sup>	Workers
DNEL		Short term Inhalation	80 mg/m <sup>3</sup>	Workers	Local
DNEL		Short term Inhalation	80 mg/m <sup>3</sup>	Workers	Systemic
DNEL		Short term Dermal	1 mg/kg bw/day	General population	Systemic
DNEL		Long term Dermal	1 mg/kg bw/day	General population	Systemic
DNEL		Short term Oral	1.5 mg/kg bw/day	General population	Systemic
DNEL		Long term Oral	1.5 mg/kg bw/day	General population	Systemic
DNEL		Short term Dermal	4 mg/kg bw/day	Workers	Systemic
DNEL		Long term Dermal	4 mg/kg bw/day	Workers	Systemic
DNEL		Long term Inhalation	10 mg/m <sup>3</sup>	General population	Systemic
DNEL		Long term Inhalation	20 mg/m <sup>3</sup>	General population	Local
DNEL		Short term Inhalation	20 mg/m <sup>3</sup>	General population	Systemic
DNEL		Short term Inhalation	40 mg/m <sup>3</sup>	General population	Local
DNEL		Long term Inhalation	40 mg/m <sup>3</sup>	Workers	Local
DNEL		Long term Inhalation	40 mg/m <sup>3</sup>	Workers	Systemic
DNEL	Short term Inhalation	80 mg/m <sup>3</sup>	Workers	Local	

**SECTION 8: Exposure controls/personal protection**

barium chromate	DNEL	Short term Inhalation	80 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	0.01 mg/m <sup>3</sup>	General population	Local
	DMEL	Long term Inhalation	0.01 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	0.01 mg/m <sup>3</sup>	Workers	Local
	DMEL	Long term Inhalation	0.01 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	1.7 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Oral	2.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	5.8 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	17.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	28.5 mg/kg bw/day	Workers	Systemic
maleic anhydride	DNEL	Long term Inhalation	0.05 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Oral	0.06 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.08 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	0.081 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	0.081 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Oral	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
DNEL	Short term Inhalation	0.2 mg/m <sup>3</sup>	Workers	Local	
DNEL	Short term Inhalation	0.2 mg/m <sup>3</sup>	Workers	Systemic	

**PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
tributyltin dilaurate	Fresh water	0.463 µg/l	-
	Marine water	0.0463 µg/l	-
	Fresh water sediment	0.05 mg/kg	-
	Marine water sediment	0.005 mg/kg	-
	Soil	0.0407 mg/kg	-
	Sewage Treatment Plant	100 mg/l	-

**8.2 Exposure controls**

## SECTION 8: Exposure controls/personal protection

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time >480 minutes according to EN374) is recommended. Recommended gloves: Viton ® or Nitrile, thickness  $\geq 0.38$  mm. When only brief contact is expected, a glove with protection class of 2 or higher (breakthrough time >30 minutes according to EN374) is recommended. Recommended gloves: Nitrile, thickness  $\geq 0.12$  mm.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

The recommended mask and the minimum required protection factors depend on the specific activity, and are described in the paragraph "Exposure Scenario information" below.

## SECTION 8: Exposure controls/personal protection

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Exposure Scenario information** : Relevant Information from Exposure Scenario:
- The following Operational Conditions and Risk Management Measures are to be respected:
- During preparation and/or mixing of the product, loading of paint to the application equipment, cleaning and/or maintenance of application equipment:
- Wear chemical resistant gloves with a minimum protection factor of 90%
- During manual spraying of the product:
- Duration of treatment/exposure : maximum 6h/shift
  - Use of a walk-in spray booth with negative pressure
  - A Respiratory Protection Device (RPD) with APF 1000 or higher must be used, the Work Related Protection factor (WPF) has to be verified to exceed 1000 for each worker whichever RPD is used.
  - Use Chemical Resistant Gloves (tested to EN374) in combination with intensive management supervision controls and training (efficacy 99%)
- During manual stripping of coatings with abrasive techniques (e.g. sanding, deburring) and dust removal (cleaning of sanding/deburring area):
- Duration of treatment/exposure maximum 0.25h/shift
  - Integrated LEV, humidity used to reduce dust (efficacy assumed to be 70%)
  - A Respiratory Protection Device (RPD) with APF 40 or higher is used
- During waste management of stripped paint or sealant:
- Duration of treatment/exposure max 1 hour/shift
  - LEV with an efficiency of 78% or higher plus vacuum cleaner (efficiency 80% or higher)
  - A Respiratory Protection Device (RPD) with APF 40 or higher is used

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Color** : Yellow.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit** : Not available.
- Flash point** : losed cup: 18°C (64.4°F) [Pensky-Martens]
- Auto-ignition temperature** :

## SECTION 9: Physical and chemical properties

Ingredient name	°C	°F	Method
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	280 to 470	536 to 878	
2-methoxy-1-methylethyl acetate	333	631.4	
2,6-dimethylheptan-4-one	345	653	
octamethylcyclotetrasiloxane	384 to 387	723.2 to 728.6	ASTM E 659
dibutyltin dilaurate	400	752	EU A.15
butanone	404	759.2	
cyclohexanone	420	788	
cyclohexanone	420	788	
Reaction mass of ethylbenzene and xylene	432	809.6	
propylene carbonate	435	815	
4-methylpentan-2-one	448	838.4	
maleic anhydride	477	890.6	

**Decomposition temperature** : Not available.

**pH** : Not available. [DIN EN 1262]

**Viscosity** : Kinematic (room temperature): 871 mm<sup>2</sup>/s [DIN EN ISO 3219]  
Kinematic (40°C): 101 mm<sup>2</sup>/s [DIN EN ISO 3219]

**Solubility(ies)** :

Media	Result
Cold water	Not soluble [OESO (TG 105)]

**Partition coefficient: n-octanol/ water** : Not applicable.

**Vapor pressure** :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
butanone	78.76	10.5				
4-methylpentan-2-one	15.75	2.1				
Castor oil, sulfated, sodium salt	15.75	2.1				
Reaction mass of ethylbenzene and xylene	6.7	0.89				
cyclohexanone	3.75	0.5				
cyclohexanone	3.75	0.5				
2-methoxy-1-methylethyl acetate	2.7	0.36				
2,6-dimethylheptan-4-one	1.73	0.23				
octamethylcyclotetrasiloxane	0.99	0.13				
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	0.75 to 2.25	0.1 to 0.3				
maleic anhydride	0.25	0.033				
aluminium hydroxide	<0.075	<0.01				
2,6-di-tert-butyl-p-cresol	0.01	0.0013				
dibutyltin dilaurate	0.000000058	0.0000000077	OECD 104			

## SECTION 9: Physical and chemical properties

propylidynetrimethanol	0	0			
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**Density** : 1.205 g/cm<sup>3</sup> [DIN EN ISO 2811-1]

**Vapor density** : Not available.

### Particle characteristics

**Median particle size** : Not applicable.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

**10.5 Incompatible materials** : Reactive or incompatible with the following materials:  
oxidizing materials

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
butanone	LC50 Inhalation Vapor	Mouse	32 g/m <sup>3</sup>	4 hours
	LC50 Inhalation Vapor	Rat	23500 mg/m <sup>3</sup>	8 hours
	LD50 Dermal	Rabbit	6480 mg/kg	-
	LD50 Intraperitoneal	Guinea pig	2 g/kg	-
	LD50 Intraperitoneal	Mouse	616 mg/kg	-
	LD50 Intraperitoneal	Rat	607 mg/kg	-
	LD50 Oral	Mouse	3000 mg/kg	-
	LD50 Oral	Rat	2737 mg/kg	-
strontium chromate	LC50 Inhalation Dusts and mists	Rat	0.27 mg/l	4 hours
	LD50 Intratracheal	Rat	16.6 mg/kg	-
	LD50 Oral	Rat	3118 mg/kg	-
4-methylpentan-2-one	LD50 Intraperitoneal	Guinea pig	800 mg/kg	-
	LD50 Intraperitoneal	Mouse	268 mg/kg	-
	LD50 Intraperitoneal	Rat	400 mg/kg	-
	LD50 Oral	Guinea pig	1600 mg/kg	-
	LD50 Oral	Mouse	1900 mg/kg	-
	LD50 Oral	Mouse	2850 mg/kg	-
	LD50 Oral	Rat	2080 mg/kg	-
	LD50 Oral	Rat	4600 mg/kg	-
Reaction mass of ethylbenzene and xylene cyclohexanone	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	1 mL/kg	-
	LD50 Intraperitoneal	Guinea pig	930 mg/kg	-

Date of issue/Date of revision : 8-3-2023

Version : 3

Date of previous issue : 28-10-2022

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## SECTION 11: Toxicological information

cyclohexanone	LD50 Intraperitoneal	Mouse	1230 mg/kg	-
	LD50 Intraperitoneal	Mouse	1230 mg/kg	-
	LD50 Intraperitoneal	Rabbit	1540 mg/kg	-
	LD50 Intraperitoneal	Rabbit	1540 mg/kg	-
	LD50 Intraperitoneal	Rat	1130 mg/kg	-
	LD50 Intraperitoneal	Rat	1130 mg/kg	-
	LD50 Oral	Mouse	1400 mg/kg	-
	LD50 Oral	Rat	1800 mg/kg	-
	LD50 Oral	Rat	1620 uL/kg	-
	LD50 Subcutaneous	Rat	2170 mg/kg	-
	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	1 mL/kg	-
	LD50 Intraperitoneal	Guinea pig	930 mg/kg	-
	LD50 Intraperitoneal	Mouse	1230 mg/kg	-
	LD50 Intraperitoneal	Mouse	1230 mg/kg	-
	LD50 Intraperitoneal	Rabbit	1540 mg/kg	-
	LD50 Intraperitoneal	Rabbit	1540 mg/kg	-
LD50 Intraperitoneal	Rat	1130 mg/kg	-	
LD50 Intraperitoneal	Rat	1130 mg/kg	-	
LD50 Oral	Mouse	1400 mg/kg	-	
LD50 Oral	Rat	1800 mg/kg	-	
LD50 Oral	Rat	1620 uL/kg	-	
maleic anhydride	LD50 Subcutaneous	Rat	2170 mg/kg	-
	LD50 Dermal	Guinea pig	>20 g/kg	-
	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Intraperitoneal	Rat	97 mg/kg	-
	LD50 Oral	Guinea pig	390 mg/kg	-
	LD50 Oral	Mouse	465 mg/kg	-
	LD50 Oral	Rabbit	875 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-

**Conclusion/Summary** : Not available.

### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2/12023100B-YEL_SBPR_P23	2480.2	13160.2	78387.9	136.1	1.3
strontium chromate	500	N/A	N/A	N/A	0.27
4-methylpentan-2-one	N/A	N/A	N/A	11	N/A
Reaction mass of ethylbenzene and xylene	N/A	1100	5000	N/A	N/A
cyclohexanone	N/A	N/A	N/A	11	N/A
cyclohexanone	N/A	N/A	N/A	11	N/A
barium salts	100	300	N/A	N/A	0.05
maleic anhydride	500	N/A	N/A	N/A	N/A

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
butanone	Skin - Mild irritant	Rabbit	-	24 hours 14 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 402 mg	-
4-methylpentan-2-one	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 UI	-
	Eyes - Severe irritant	Rabbit	-	40 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

## SECTION 11: Toxicological information

Reaction mass of ethylbenzene and xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 UI	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
cyclohexanone	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 250 ug	-
cyclohexanone	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 250 ug	-
maleic anhydride	Skin - Mild irritant	Rabbit	-	500 mg	-
	Eyes - Severe irritant	Rabbit	-	1 %	-

**Conclusion/Summary** : Not available.

### Sensitization

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
butanone	Category 3	-	Narcotic effects
strontium chromate	Category 3	-	Respiratory tract irritation
2-methoxy-1-methylethyl acetate	Category 3	-	Narcotic effects
4-methylpentan-2-one	Category 3	-	Narcotic effects
Reaction mass of ethylbenzene and xylene	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Reaction mass of ethylbenzene and xylene	Category 2	-	-
barium chromate	Category 1	-	kidneys, respiratory tract
maleic anhydride	Category 1	inhalation	respiratory system

### Aspiration hazard

Product/ingredient name	Result
Reaction mass of ethylbenzene and xylene	ASPIRATION HAZARD - Category 1

**Information on the likely routes of exposure** : Not available.

## SECTION 11: Toxicological information

### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
dryness  
cracking  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

- Conclusion/Summary** : Not available.
- General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

## SECTION 11: Toxicological information

- Mutagenicity** : May cause genetic defects.  
**Reproductive toxicity** : Suspected of damaging fertility or the unborn child.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

Not available.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
butanone	Acute EC50 >500 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 >500000 µg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 5091000 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
4-methylpentan-2-one	Acute LC50 5600 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute LC50 3220000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 505000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 540000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 537000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Reaction mass of ethylbenzene and xylene cyclohexanone	Chronic NOEC 78 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 168 mg/l Fresh water	Fish - Pimephales promelas - Embryo	33 days
cyclohexanone	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 32.9 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Acute LC50 630000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
maleic anhydride	Acute LC50 527000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 732000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 32.9 mg/l Fresh water	Algae - Chlamydomonas reinhardtii - Exponential growth phase	72 hours
	Acute LC50 230 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

### 12.3 Bioaccumulative potential

**Date of issue/Date of revision** : 8-3-2023

**Version** : 3

**Date of previous issue** : 28-10-2022

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## SECTION 12: Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
butanone	0.3	-	low
2-methoxy-1-methylethyl acetate	1.2	-	low
4-methylpentan-2-one	1.9	-	low
Reaction mass of ethylbenzene and xylene	3.12	8.1 to 25.9	low
cyclohexanone	0.86	-	low
cyclohexanone	0.86	-	low
maleic anhydride	-2.78	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

### 12.6 Endocrine disrupting properties

Not available.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

**Disposal considerations** : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

#### European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:




Waste code	Waste designation
EWC 08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

#### Packaging


## SECTION 13: Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3 	3 	3 
14.4 Packing group	III	II	II
14.5 Environmental hazards	Yes.	Marine Pollutant(s): strontium chromate	Yes. The environmentally hazardous substance mark is not required.

### Additional information

- ADR/RID** : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.  
**Viscous liquid exception** This class 3 material can be shipped as Packing Group III in packagings up to 450 L.  
**Tunnel code (E)**
- IMDG** : **Emergency schedules** F-E, \_S-E\_  
 The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.  
**Viscous liquid exception** This class 3 material can be shipped as Packing Group III in packagings up to 450 L.  
**IMDG Code Segregation group** Not applicable
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.  
**Viscous liquid exception** This class 3 material can be shipped as Packing Group III in packagings up to 30 L (100 L for cargo aircraft). Transport in accordance with this provision must be noted on the Shipper's Declaration.
- 14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## SECTION 14: Transport information

**14.7 Maritime transport in bulk according to IMO instruments** : Not applicable.


## SECTION 15: Regulatory information

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


### EU Regulation (EC) No. 1907/2006 (REACH)

#### Annex XIV - List of substances subject to authorization

##### Annex XIV

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
 Carcinogen	strontium chromate	Listed	29	8/22/2014

#### Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
 Carcinogen	strontium chromate	Recommended	ED/77/2011	8/22/2014

**REACH Authorization number** : REACH/20/7/5, REACH/20/7/15

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Restricted to professional users.

#### Other EU regulations

**VOC** : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

**VOC for Ready-for-Use Mixture** :  Not available.

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

#### Ozone depleting substances (1005/2009/EU)

Not listed.

#### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Persistent Organic Pollutants

Not listed.

#### Seveso Directive

This product is controlled under the Seveso Directive.

#### Danger criteria

## SECTION 15: Regulatory information

### Category

P5c  
E2

### National regulations

**Industrial use** : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

Product/ingredient name	List name	Name on list	Classification	Notes
4-methylpentan-2-one	France Occupational Exposure Limits	méthylisobutylcétone; 4-méthyl-2-pentanone	Carc. C2	-

**Social Security Code, Articles L 461-1 to L 461-7** :

butanone	RG 84
strontium chromate	RG 10, RG 10bis, RG 10ter
4-methylpentan-2-one	RG 84
Reaction mass of ethylbenzene and xylene	RG 4bis, RG 84
cyclohexanone	RG 84
cyclohexanone	RG 84
barium chromate	RG 10, RG 10bis, RG 10ter
maleic anhydride	RG 66

**Reinforced medical surveillance** : Decree n ° 2012-135 of January 30, 2012 relating to the organization of occupational medicine: not applicable

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

**15.2 Chemical Safety Assessment** : No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

### Abbreviations and acronyms

: ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 N/A = Not available  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 SGG = Segregation Group  
 vPvB = Very Persistent and Very Bioaccumulative

Date of issue/Date of revision : 8-3-2023 Version : 3

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## SECTION 16: Other information

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 2, H225 Acute Tox. 4, H332 Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1A, H350 Repr. 2, H361 STOT SE 3, H335 STOT SE 3, H336 Aquatic Chronic 2, H411	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

### Full text of abbreviated H statements

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.

### Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Carc. 1A	CARCINOGENICITY - Category 1A
Carc. 2	CARCINOGENICITY - Category 2
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2

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## SECTION 16: Other information

Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Muta. 1B	GERM CELL MUTAGENICITY - Category 1B
Muta. 2	GERM CELL MUTAGENICITY - Category 2
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Resp. Sens. 1	RESPIRATORY SENSITIZATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

<b>Date of printing</b>	: 8 March 2023
<b>Date of issue/ Date of revision</b>	: 8 March 2023
<b>Date of previous issue</b>	: 28 October 2022
<b>Version</b>	: 3
<b>Unique ID</b>	:

## Annex

**Exposure Scenarios** : <https://rebrand.ly/exposure-english>

### Notice to reader

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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