Safety Data Sheet

Complies with Annex II of REACH - Regulation (EU) 2020/878

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

1.1. Product identifier

Code:	**RPC7228RP1701**
Product name	**Sarpol RP17 - Part B**
UFI code:	**EV00-00XR-7004-9FCQ**

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

Description/Use **Anti-wear coatings**

1.3. Details of the supplier of the safety data sheet

Name	**SARO Srl**
Full address	**Via G. Di Vittorio, 5**
District and Country	**20020 Arconate (MI)** **Italy**
	tel. 0331453794
e-mail address of the competent person	
responsible for the Safety Data Sheet	**amministrazione@sa.ro.it**

1.4. Emergency telephone number

For urgent inquiries refer to **IRELAND: National Poisons Information Centre (NPIC): +353 1 8092166**
MALTA: Medicines & poisons info Office 112

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous under the provisions of Regulation (EC) 1272/2008 (CLP) (as amended and adapted). The product therefore requires a safety data sheet in accordance with the provisions of Regulation (EU) 2020/878.
Additional information concerning health and/or environmental hazards can be found in sections 11 and 12 of this sheet.

Classification and hazard statements:
Chemical and physical hazards: the product is not classified for this hazard class
Health hazards: Product may damage fertility, is toxic if swallowed or inhaled. May cause damage to organs through prolonged or repeated exposure, Causes severe skin burns and eye damage. Product may cause allergic skin reaction.
Environmental hazards: The product is very toxic to aquatic organisms with long-lasting effects.

Toxicity for reproduction, category 1B	H360F	May damage fertility.
Acute toxicity, category 3	H301	Toxic if swallowed.
Acute toxicity, category 3	H331	Toxic if inhaled.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause organ damage with prolonged or repeated exposure.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye injury, category 1	H318	Causes serious eye injuries.
Skin sensitisation, category 1	H317	It may cause an allergic skin reaction.
Dangerous for the aquatic environment, chronic toxicity, category 1	H410	Very toxic to aquatic organisms with long-lasting effects.

2.2 Label Elements

Hazard labelling in accordance with Regulation (EC) 1272/2008 (CLP) and subsequent amendments and adjustments.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H360F	May damage fertility.
H301+H331	Toxic if swallowed or inhaled.
H373	May cause organ damage with prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H317	It may cause an allergic skin reaction.
H410	Very toxic to aquatic organisms with long-lasting effects. Restricted use to professional users.

Precautionary statements:

P260	Do not breathe the fumes, gases, mist and the vapours.
P201	Obtain specific instructions before use.
P305+P351+P338	IF IN EYES: Rinse thoroughly for several minutes. Remove any contact lenses if it is easy to do so. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Remove all contaminated clothing immediately. Rinse skin [or take a shower].
P280	Wear gloves and protective clothing and protect your eyes and your face.
P310	Immediately contact an ANTIVELENI CENTRE or a doctor .

Contains: 4,4′-ISOPROPYLENEDIPHENOL
Formaldehyde, polymer with benzenamine, hydrogenated
2,2'-iminodi(ethylamine)
4,4'-methylenedicyclohexanamine
Benzyl alcohol

2.3. Other hazards
According to the available data, the product does not contain PBT or vPvB substances in a proportion ≥ 0.1 %.
The product contains substances with endocrine-disrupting properties in a concentration ≥ 0.1%:

4,4′-ISOPROPYLENEDIPHENOL
salicylic acid (ED List III https://edlists.org/substance/salicylic-acid)

SECTION 3. Composition/information on ingredients

3.2. Mixtures
Contains:

Identification	Concentration%	Classification (EC) 1272/2008 (CLP)	Specific concentration limits 1272/2008 (CLP)
Formaldehyde, polymer with benzenamine, hydrogenated			
INDEX -	25-45*	Acute Tox. 3 H301, STOT RE 2 H373, Skin Corr. 1C H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412	*Not applicable*
EC 603-894-6		LD50 Oral: >50 mg/kg	
CAS 135108-88-2			

REACH Reg. 01-2119983522-33-XXXX			
Benzyl alcohol			
INDEX 603-057-00-5	30-33*	Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Sens. 1B H317	*Not applicable*
EC 202-859-9		LD50 Orale: 1200 mg/kg	
CAS 100-51-6			
REACH Reg. 01-2119934494-33-XXXX			
2,2'-iminodi(ethylamine)			
INDEX 612-058-00-X	7-10*	Acute Tox. 2 H330, Acute Tox. 4 H302, Acute Tox. 4 H312, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1B H317	*Not applicable*
EC 203-865-4		STA Oral: 500 mg/kg, STA Dermal: 1100 mg/kg, LC50 Inhalation mists/dust: 0.071 mg/l/4h	
CAS 111-40-0			
REACH Reg. 01-2119473793-27-XXXX			
4,4'-methylenedicyclohexanamine			
INDEX -	2-5*	Acute Tox. 4 H302, STOT RE 2 H373, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1B H317	*Not applicable*
EC 217-168-8		LD50 Oral: 350 mg/kg bw	
CAS 1761-71-3			
REACH Reg. 01-2119541673-38-XXXX			
4,4'-ISOPROPYLENEDIPHENOL			
INDEX 604-030-00-0	2-5*	Repr. 1B H360F, Eye Dam. 1 H318, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=10	*Not applicable*
EC 201-245-8			
CAS 80-05-7			
REACH Reg. 01-2119457856-23-XXXX			
salicylic acid			
INDEX -	2-5*	Repr. 2 H361d, Acute Tox. 4 H302, Eye Dam. 1 H318	*Not applicable*
EC 200-712-3		LD50 Oral: 891 mg/kg	
CAS 69-72-7			
REACH Reg. 01-2119486984-17-XXXX			

*Upper value of range excluded
The full text of the hazard statements (H) is given in section 16 of the sheet.

SECTION 4. First Aid Measures

4.1. Description of first aid measures
EYES: Remove any contact lenses. Wash immediately and thoroughly with water for at least 30 to 60 minutes, opening eyelids widely. Seek medical advice immediately.
SKIN: Remove contaminated clothing. Shower immediately. Seek medical advice immediately.
INGESTION: Drink as much water as possible. Seek medical advice immediately. Do not induce vomiting unless expressly authorised by a doctor.

INHALATION: Get medical attention immediately. Move the person to fresh air, away from the site of the accident. If breathing ceases, administer artificial respiration. Take appropriate precautions for the rescuer.

4.2. Main symptoms and effects, both acute and delayed
No specific information is known about symptoms and effects caused by the product.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Consult a doctor.

SECTION 5. Firefighting measures

5.1. Extinguishing media
SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing media are the traditional ones: carbon dioxide, foam, powder and water mist.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture
EXPOSURE HAZARDS IN CASE OF FIRE
Avoid breathing in combustion products, especially NOx and COx.

5.3. Recommendations for firefighters
GENERAL INFORMATION
Cool containers with jets of water to prevent decomposition of the product and the development of substances potentially hazardous to health. Always wear full fire protection equipment. Collect extinguishing water, which must not be discharged into the sewage system. Dispose of contaminated extinguishing water and fire residue in accordance with current regulations.
EQUIPMENT
Normal fire-fighting clothing, such as an open-circuit self-contained breathing apparatus (EN 137), flame-resistant suit (EN469), flame-resistant gloves (EN 659) and firefighter's boots (HO A29 or A30).

SECTION 6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
FOR NON-EMERGENCY PERSONNEL
Alert personnel responsible coordinating the response to such emergencies. Move away from the area affected by the accident if you are not in possession of the personal protective equipment listed in section 8.
FOR EMERGENCY RESPONDERS
Evacuate all personnel not suitably equipped to deal with the emergency. Wear suitable protective clothing and equipment, as set out in section 8 of the safety data sheet, to prevent any contamination of the skin, eyes and personal clothing. Stop leak if safe to do so.
Do not permit workers to access the area affected by the accident until safe conditions have been restored. Ventilate the areas affected.

6.2. Environmental Precautions
Prevent the product from entering sewers, surface water and groundwater.

6.3 Methods and material for containment and cleaning up
Collect the leaked product into a suitable container . Assess the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material (e.g. vermiculite, diatomaceous earth, sand, kieselguhr, zeolites, activated carbon, aluminium/silica gel).
Ensure sufficient ventilation of the site affected by the leak. Disposal of the contaminated material must be carried out in accordance with the provisions of section 13.

6.4. Reference to other sections
Information on personal protection and disposal can be found in sections 8 and 13.

SECTION 7. Handling and Storage

7.1. Precautions for safe handling
The product is classified as reprotoxic and as such is subject to the provisions of Title IX, Chapter II of Legislative Decree 81/2008 as amended and Directive 2004/37/EC as amended. Eliminate or minimise exposure by operating in a closed loop; if this is not technically feasible, limit exposure to the product both in terms of the quantities used and frequency of use, and the number of workers exposed.

Handle the product after consulting all other sections of this safety data sheet. Avoid dispersing the product in the environment. Do not eat, drink or smoke during use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities
Store only in the original container. Keep containers closed, in a well-ventilated place, out of direct sunlight. Keep containers away from any incompatible materials, e.g. acids, bases and strong oxidants, see section 10.

Storage class TRGS 510 (Germany):
6.1C

7.3. Specific end use(s)
There are no particular end uses other than the identified relevant uses listed in Section 1.2 of this safety data sheet.

SECTION 8. Exposure controls/personal protection

8.1. Control Parameters

Regulatory references:

ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2024

Benzyl alcohol

Predicted concentration of no effect on the environment - PNEC		
Reference value in fresh water	1	mg/l
Reference value in seawater	0,1	mg/l
Freshwater sediment reference value	5,27	mg/kg/d
Reference value for sediments in seawater	0,527	mg/kg/d
Reference value for water, intermittent release	2,3	mg/l
Reference value for STP microorganisms	39	mg/l
Reference value for the terrestrial compartment	0,456	mg/kg/d

Health - Derived No-Effect Level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exhibition Street	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		20 mg/kg bw/d		4 mg/kg bw/d				
Inhalation		27 mg/m3		5.4 mg/m3		110 mg/m3		22 mg/m3
Dermica		20 mg/kg bw/d		4 mg/kg bw/d		40 mg/kg bw/d		8 mg/kg bw/d

2,2'-iminodi(ethylamine)

Threshold limit value

Type	Status	TWA/8h		STEL/15min		Notes / Remarks	Critical effects
		mg/m3	ppm	mg/m3	ppm		
TLV-ACGIH		4,2	1			SKIN	irritation of the upper respiratory tract; eye irritation

Predicted concentration of no effect on the environment - PNEC		
Reference value in fresh water	0,56	mg/l

Reference value in seawater	0,056	mg/l
Freshwater sediment reference value	1072	mg/kg
Reference value for sediments in seawater	107,2	mg/kg/d
Reference value for water, intermittent release	0,32	mg/l
Reference value for STP microorganisms	6	mg/l
Reference value for the terrestrial compartment	7,97	mg/kg/d

Health - Derived No-Effect Level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exhibition Street	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation		27.5 mg/m3		4.6 mg/m3	2.6 mg/m3	92.1 mg/m3	0.87 mg/m3	15.4 mg/m3
Dermica		4.88 mg/kg bw/d		4.88 mg/kg bw/d			1.1 mg/cm²	11.4 mg/kg bw/d

Formaldehyde, polymer with benzenamine, hydrogenated

Predicted concentration of no effect on the environment - PNEC

Reference value in fresh water	0,015	mg/l
Reference value in seawater	0,002	mg/l
Freshwater sediment reference value	15	mg/kg
Reference value for sediments in seawater	1,5	mg/kg
Reference value for seawater, intermittent release	0,15	mg/l
Reference value for STP microorganisms	1,9	mg/l
Reference value for the terrestrial compartment	1,8	mg/kg

Health - Derived No-Effect Level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exhibition Street	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation								0.2 mg/m3
Dermica						6 mg/kg bw/d		2 mg/kg bw/d

4,4'-methylenedicyclohexanamine

Predicted concentration of no effect on the environment - PNEC

Reference value in fresh water	0,08	mg/l
Reference value in seawater	0,008	mg/l
Freshwater sediment reference value	137	mg/kg
Reference value for sediments in seawater	13,6	mg/kg
Reference value for water, intermittent release	0,08	mg/l
Reference value for STP microorganisms	3,2	mg/l
Reference value for the terrestrial compartment	27,3	mg/kg

Health - Derived No-Effect Level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exhibition Street	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation								0.13 mg/m3
Dermica								0.053 mg/kg bw/d

salicylic acid

Predicted concentration of no effect on the environment - PNEC

Reference value in fresh water	0,2	mg/l
Reference value in seawater	0,02	mg/l
Freshwater sediment reference value	1,42	mg/kg
Reference value for sediments in seawater	0,142	mg/kg
Reference value for seawater, intermittent release	1	mg/l
Reference value for STP microorganisms	162	mg/l
Reference value for the terrestrial compartment	0,166	mg/kg

Health - Derived No-Effect Level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exhibition Street	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1 mg/kg bw/d				
Inhalation				4 mg/m3			5 mg/m3	5 mg/m3
Dermica				1 mg/kg bw/d				2.3 mg/kg bw/d

4,4′-ISOPROPYLENEDIPHENOL

Threshold limit value

Type	Status	TWA/8h		STEL/15min		Notes / Remarks
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	10				INALAB
OEL	EU	2				INALAB

Predicted concentration of no effect on the environment - PNEC		
Reference value in fresh water	0,023	mg/l
Reference value in seawater	0,019	mg/l
Freshwater sediment reference value	1,2	mg/kg
Reference value for sediments in seawater	0,24	mg/kg
Reference value for seawater, intermittent release	0,011	mg/l
Reference value for STP microorganisms	320	mg/l
Reference value for the terrestrial compartment	2,7	mg/kg

Health - Derived No-Effect Level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exhibition Street	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		53 µg/kg bw/day		53 µg/kg bw/day				
Inhalation	1 mg/m3	1 mg/m3	1 mg/m3	1 mg/m3	2 mg/m3	2 mg/m3	2 mg/m3	2 mg/m3
Dermica		24 mg/kg bw/d		24 µg/kg bw/day		66 µg/kg bw/day		66 µg/kg bw/day

Legend:
(C) = CEILING ; INALAB = Inhalable Fraction ; RESPIR = Respirable Fraction ; TORAC = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

Since the use of appropriate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace through effective local exhaust ventilation.
When choosing personal protective equipment, seek advice from your chemical suppliers if necessary.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Exposure levels should be kept as low as possible to avoid significant accumulation in the body. Personal protective equipment should be managed in

such a way as to ensure maximum protection (e.g. reduced replacement times).

HAND PROTECTION
Protect hands with category III work gloves of at least type B, which protect against amines (class K), aldehydes (class T), alcohols (A) and organic acids (class N). Recommended material: fluorinated rubber and similar.
For the final choice of work glove material (ref. standard EN 374), the following must be considered: compatibility, degradation, breakage time and permeation.
In the case of preparations, the resistance of work gloves to chemicals must be checked before use as it cannot be predicted. Gloves have a wear time that depends on the duration and mode of use.

SKIN PROTECTION
Wear long-sleeved work clothes and category III occupational safety footwear (ref. Reg. (EU) 2016/425 and EN ISO 20344). Wash with soap and water after removing protective clothing. Provide an emergency shower with visocular tray.

EYE PROTECTION
It is advisable to wear protective goggles, preferably airtight (ref. standard EN ISO 16321).
If there is a risk of being exposed to splashes or sprays in connection with the work performed, adequate protection of the mucous membranes (mouth, nose, eyes) must be provided in order to avoid accidental absorption.

RESPIRATORY PROTECTION
The use of respiratory protective equipment is necessary if the technical measures taken are not sufficient to limit the worker`s exposure to the threshold values taken into consideration. It is advisable to wear a mask with an ABK type combined filter, the class (1, 2 or 3) of which should be chosen in relation to the limit concentration of use. (ref. standard EN 14387). It is recommended the use of a type P filtering facemask whose class (1, 2 or 3) and actual need, will have to be defined according to the outcome of the risk assessment (ref. standard EN 149).
In the event that the substance in question is odourless or its odour threshold is above the relevant TLV-TWA and in the event of an emergency, wear an open-circuit self-contained breathing apparatus (ref. standard EN 137) or a supplied-air respirator (ref. standard EN 138). For the correct choice of respiratory protective device, refer to EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS
Emissions from production processes, including those from ventilation equipment, should be controlled in order to comply with environmental protection regulations.

Product residues must not be discharged unchecked into drains or watercourses.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Apperarance	liquid	
Colour	colourless to yellowish	
Odour	delicate	
Melting or freezing point	not available	
Initial boiling point	> 200 °C	
Flammability	non-flammable	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	> 100 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	>7	
Kinematic viscosity	>20,5	
Solubility	partially soluble	
Partition coefficient: n-octanol/water	not applicable	The product is a mixture
Vapour pressure	<700 mBar	

Density and/or relative density	1.055 G/cmc	
Relative vapour density	>1	
Particle characteristics	not applicable	The product is liquid

9.2. Other information
9.2.1. Information with regard to physical hazard classes
Information not available

9.2.2. Other safety characteristics
Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity
There are no particular risk of reaction with other substances under normal conditions of use.

10.2. Chemical stability
The product is stable under normal conditions of use and storage.

10.3. Possibility of dangerous reactions
Under normal use and storage conditions, no hazardous reactions are to be expected.

10.4. Conditions to be avoided
None in particular. However, observe the usual precautions with chemicals.

10.5. Incompatible materials
Acids, bases and strong oxidants

10.6. Hazardous decomposition products
By thermal decomposition, gases and vapors potentially harmful to health can be released, in particular NOx, COx.

SECTION 11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
In the absence of experimental toxicological data on the product itself, the possible health hazards of the product were assessed on the basis of the properties of the substances contained, according to the criteria laid down in the relevant classification regulations.
Therefore, consider the concentration of any individual hazardous substances mentioned in Section 3 to assess the toxicological effects of exposure to the product.

Metabolism, toxicokinetics, mechanism of action and other information
Information not available

Information on likely routes of exposure
Information not available

Immediate, delayed and chronic effects from short- and long-term exposure
Information not available

Interactive effects
Information not available

ACUTE TOXICITY
Based on the available data and considering the classification criteria of Annex I, Part 3 of Regulation (EC) 1272/2008 as amended , the product is classified as ***(oral) Acute Tox. 3, H301, (inhal.) Acute Tox. 3, H331***

ATE (Inhalation - mists/dusts) of the mixture:	0.72 mg/l
ATE (Oral) of the mixture:	117.05 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

Benzyl alcohol

LD50 (Dermal):	> 2000 mg/kg Rabbit
LD50 (Oral):	1200 mg/kg Rat
LC50 (vapour inhalation):	11 mg/l/4h

2,2'-iminodi(ethylamine)

LD50 (Dermal):	1.09 mg/kg Rabbit
STA (Cutaneous):	1100 mg/kg estimated from Table 3.1.2 of Annex I of the CLP (data used to calculate the estimated acute toxicity of the mixture)
LD50 (Oral):	1.62 mg/kg rat
STA (Oral):	500 mg/kg estimated from Table 3.1.2 of Annex I of the CLP (data used to calculate the estimated acute toxicity of the mixture)
LC50 (inhalation mists/dust):	0.071 mg/l/4h

Formaldehyde, polymer with benzenamine, hydrogenated

LD50 (Dermal):	> 1000 mg/kg Rabbit
LD50 (Oral):	> 50 mg/kg Rat

4,4'-methylenedicyclohexanamine

LD50 (Dermal):	1390 mg/kg bw Rabbit
LD50 (Oral):	350 mg/kg bw Rat

salicylic acid

LD50 (Dermal):	> 10000 mg/kg rabbit
LD50 (Oral):	891 mg/kg rat

4,4′-ISOPROPYLENEDIPHENOL

LD50 (Dermal):	3000 mg/kg Rabbit
LD50 (Oral):	4100 mg/kg Rat (F)

SKIN CORROSION / SKIN IRRITATION

On the basis of the available data and considering the classification criteria set out in Table 3.2.3 of Annex I of Regulation (EC) 1272/2008 as amended, the product is classified as ***Skin corr. 1B, H314***

SEVERE EYE DAMAGE/EYE IRRITATION

On the basis of the available data and considering the classification criteria set out in Table 3.3.3 of Annex I of Regulation (EC) 1272/2008 as amended, the product is classified as ***Eye Dam. 1, H318***

RESPIRATORY OR SKIN SENSITISATION

Based on the available data and considering the classification criteria of Annex I, Part 3 of Regulation (EC) 1272/2008 as amended, the product is classified as ***Skin Sens. 1, H317***

GERM CELL MUTAGENICITY

Based on available data and considering the classification criteria of Annex I, Part 3 of Regulation (EC) 1272/2008 as amended, the product is not classified for this hazard class.

CARCINOGENICITY

Based on available data and considering the classification criteria of Annex I, Part 3 of Regulation (EC) 1272/2008 as amended, the product is not classified for this hazard class.

REPRODUCTIVE TOXICITY

Based on available data and considering the classification criteria of Annex I, Part 3 of Regulation (EC) 1272/2008 as amended, the product is classified as ***Repr. Tox. 1B, H360F***.

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE

Based on available data and considering the classification criteria of Annex I, Part 3 of Regulation (EC) 1272/2008 as amended, the product is not classified for this hazard class.

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE
Based on the available data and considering the classification criteria of Annex I, Part 3 of Regulation (EC) 1272/2008 as amended, the product is classified as
STOT RE 2, H373

DANGER IN THE EVENT OF ASPIRATION
Based on available data and considering the classification criteria of Annex I, Part 3 of Regulation (EC) 1272/2008 as amended, the product is not classified for this hazard class.

11.2. Information on other hazards
According to the available data, the product contains the following endocrine disruptors in concentrations of 0.1 % by weight or more that may cause endocrine disrupting effects in humans and cause adverse effects in exposed individuals or their offspring:

4,4'-ISOPROPYLENEDIPHENOL
salicylic acid (ED List III https://edlists.org/substance/salicylic-acid)

SECTION 12. Ecological Information

12.1. Toxicity
Based on the assessment of the classification of components and the classification provisions of Annex I, Part 4 of Regulation (EC) 1272/2008 as amended, the mixture is classified as dangerous for the environment with long-term effects ***Aq. Chronic H410***.

Benzyl alcohol

LC50 - Fish	460 mg/l/96h Pimephales promelas
EC50 - Crustaceans	230 mg/l/48h Daphnia magna
EC50 - Algae / Aquatic Plants	500 mg/l/72h Pseudokirchneriella subcapitata
NOEC Chronic Crustaceans	51 mg/l Daphnia magna

2,2'-iminodi(ethylamine)

LC50 - Fish	0.43 g/l/96h Poecilia reticulata
EC50 - Crustaceans	64.6 mg/l/48h Daphnia magna - WoE
EC50 - Algae / Aquatic Plants	187 mg/l/72h Raphidocelis subcapitata
NOEC Chronic Fish	> 10 mg/l Gasterosteus aculeatus, 28 days
NOEC Chronic Crustaceans	5.6 mg/l Daphnia magna, 21 days
NOEC Chronic Algae / Aquatic Plants	10 mg/l

Formaldehyde, polymer with benzenamine, hydrogenated

LC50 - Fish	63 mg/l/96h Poecilia reticulata
EC50 - Crustaceans	15.4 mg/l/48h Daphnia magna
EC50 - Algae / Aquatic Plants	43.94 mg/l/72h Desmodesmus subspicatus

4,4'-methylenedicyclohexanamine

LC50 - Fish	68 mg/l/96h Leuciscus idus
EC50 - Crustaceans	7.07 mg/l/48h Daphnia magna
EC50 - Algae / Aquatic Plants	140 mg/l/72h Scenedesmus subspicatus
NOEC Chronic Crustaceans	4 mg/l Daphnia magna, 21 days

salicylic acid

LC50 - Fish	1370 mg/l/96h Pimephales promelas - Read-across
EC50 - Crustaceans	870 mg/l/48h Daphnia magna

EC50 - Algae / Aquatic Plants	> 100 mg/l/72h Desmodesmus subspicatus
NOEC Chronic Crustaceans	10 mg/l Daphnia magna, 21 days

4,4′-ISOPROPYLENEDIPHENOL

LC50 - Fish	4.6 mg/l/96h Pimephales promelas
EC50 - Crustaceans	10.2 mg/l/48h Daphnia magna
NOEC Chronic Fish	3.64 mg/l Oncorhynchus mykiss, 28 days
NOEC Chronic Crustaceans	> 3.146 mg/l Daphnia magna, 21 days

12.2. Persistence and degradability

Benzyl alcohol — Rapidly degradable

2,2'-iminodi(ethylamine)

Solubility in water	1000 - 10000 mg/l

4,4′-ISOPROPYLENEDIPHENOL

Solubility in water	301 mg/l
	Rapidly degradable

12.3. Bioaccumulation potential

2,2'-iminodi(ethylamine)

Partition coefficient: n-octanol/water	-5,58

4,4′-ISOPROPYLENEDIPHENOL

Partition coefficient: n-octanol/water	3,4

12.4. Mobility in soil
Information not available

12.5. Results of PBT and vPvB assessment
According to the available data, the product does not contain PBT or vPvB substances in a proportion ≥ 0.1 %.

12.6 Endocrine-disrupting properties
According to the available data, the product contains the following endocrine disruptors in concentrations of 0.1 % by weight or more that may have endocrine disrupting effects on the environment or animal species causing adverse effects on exposed organisms or their offspring:

4,4′-ISOPROPYLENEDIPHENOL

salicylic acid (ED List III https://edlists.org/substance/salicylic-acid)

12.7. Other adverse effects
Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods
Reuse if possible. Product residues are to be regarded as special hazardous waste. The hazardousness of waste containing some of this product must be assessed in accordance with current legislation.
Disposal must be entrusted to an authorised waste management company, in accordance with national and possibly local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be sent for recovery or disposal in accordance with national waste management regulations.

SECTION 14. Transport information

14.1. ONU number or ID number

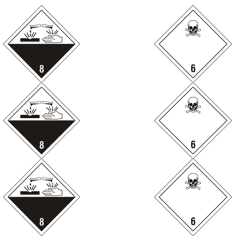
ADR / RID, IMDG, IATA: ONU 2922

14.2. UN proper shipping name

ADR / RID:	CORROSIVE LIQUID, TOXIC, N.O.S.(Formaldehyde, polymer with hydrogenated benzenamine, 4,4′-isopropylenediphenol)
IMDG:	CORROSIVE LIQUID, TOXIC, N.O.S.(Formaldehyde, polymer with hydrogenated benzenamine, 4,4′-isopropylenediphenol)
IATA:	CORROSIVE LIQUID, TOXIC, N.O.S.(Formaldehyde, polymer with hydrogenated benzenamine, 4,4′-isopropylenediphenol)

14.3. Transport hazard class(es)

ADR / RID:	Class: 8	Label: 8 (6.1)
IMDG:	Class: 8	Label: 8 (6.1)
IATA:	Class: 8	Label: 8 (6.1)



14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 86	Limited Quantities: 1 L	Tunnel restriction code: (E)
	Special provision: 274		
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 855
	Passengers:	Maximum quantity: 1 L	Packaging instructions:

851

Special provision: A3, A4, A803

14.7. Maritime transport in bulk according to IMO instruments
Information not relevant

SECTION 15. Regulatory Information

15.1. Safety, health and environmental laws and regulations specific to the substance or mixture

Seveso Category - Directive 2012/18/EU: H2-E1

Biocides Regulation (Reg. (EU) 528/2012): not applicable

Detergents Regulation (Reg. (EC) 648/2004): not applicable

Dir. 2004/42/EC - VOC / Legislative Decree 161/2006: not applicable

Restrictions on the product or contained substances according to Annex XVII Regulation (EC) 1907/2006

Product

Point	3

Substances contained

Point	75	Benzyl alcohol
Point	75	2,2'-iminodi(ethylamine)
Point	30-66-75	4,4′-ISOPROPYLENEDIPHENOL

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Candidate List Substances (Art. 59 REACH)
4,4′-ISOPROPYLENEDIPHENOL

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to export notification Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Health Checks
Workers exposed to this chemical agent hazardous to health must be subject to health surveillance carried out in accordance with the provisions of Article 41 of Legislative Decree 81 of 9 April 2008, unless the risk to the safety and health of the worker has been assessed as insignificant, in accordance with Article 224(2).

Classification for water pollution in Germany (AwSV, vom 18. April 2017)
WGK 3: Very dangerous for water

15.2. Chemical Safety Assessment

A chemical safety assessment was carried out for the following contained substances:

Benzyl alcohol

4,4′-ISOPROPYLENEDIPHENOL

2,2'-iminodi(ethylamine)

Formaldehyde, polymer with benzenamine, hydrogenated

4,4'-methylenedicyclohexanamine

salicylic acid

SECTION 16. Other information

Text of the hazard statements (H) cited in sections 2-3 of the sheet:

Repr. 1B	Toxicity for reproduction, category 1B
Repr. 2	Toxicity for reproduction, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye injury, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitisation, category 1
Skin Sens. 1B	Skin sensitisation, category 1B
Aquatic Acute 1	Dangerous for the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Dangerous for the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Dangerous for the aquatic environment, chronic toxicity, category 3
H360F	It can harm fertility.
H361d	Suspected of harming the foetus.
H330	Lethal if inhaled.
H301+H331	Toxic if swallowed or inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause organ damage with prolonged or repeated exposure.
H314	Causes severe skin burns and eye injuries.
H318	Causes serious eye injuries.
H335	May irritate the respiratory tract.
H317	It may cause an allergic skin reaction.

H400	Very toxic to aquatic organisms.
H410	Very toxic to aquatic organisms with long-lasting effects.
H412	Harmful to aquatic organisms with long-lasting effects.

LEGEND:
- ADR: European Agreement concerning the Transport of Dangerous Goods by Road
- CAS: Chemical Abstract Service number
- EC: Identification number in ESIS (European Substances Database)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived level without effect
- EC50: Concentration affecting 50% of the test population
- EmS: Emergency Schedule
- GHS: Globally Harmonised System for the Classification and Labelling of Chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulations
- IC50: 50 per cent immobilisation concentration of the test population
- IMDG: International Maritime Dangerous Goods Code
- IMO: International Maritime Organisation
- INDEX: Identification number in Annex VI of the CLP
- LC50: Lethal concentration 50%
- LD50: 50% lethal dose
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predictable environmental concentration
- PEL: Expected Exposure Level
- PMT: Persistent, mobile and toxic
- PNEC: Predictable no-effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulations for the International Carriage of Dangerous Goods by Rail
- STA: Acute Toxicity Estimate
- TLV: Threshold Limit Value
- TLV CEILING: Concentration not to be exceeded at any time during work exposure.
- TWA: Weighted Average Exposure Limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile Organic Compound
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Aquatic Hazard Class (Germany).
- A1 = recognised human carcinogen.
- A2 = suspected human carcinogen.
- A3 = recognised animal carcinogen with unknown relevance in humans.
- A4 = not classified as carcinogenic to humans.
- A5 = not suspected of being carcinogenic to humans.
- IBE = Substance with Biological Exposure Indicator.

GENERAL BIBLIOGRAPHY:
1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
3. Regulation (EU) 2020/878 (All. II REACH Regulation)
4. Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)
5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (EU) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (EU) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (EU) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (EU) 2021/643 (XVI Atp. CLP)

21. Delegated Regulation (EU) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (EU) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (EU) 2023/707
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA Agency Website
- Database of model SDSs of chemical substances - Ministry of Health and Istituto Superiore di Sanità

CALCULATION METHODS

Chemical-physical hazards: The hazard was derived from the classification criteria of the CLP Regulation Annex I Part 2 as amended.

Health hazards were assessed using the calculation method laid down in Regulation (EC) 1272/2008 (CLP) as amended for the classification of mixtures when data exist on all or some of the components of the mixture:
Acute Tox: application of criteria Table 3.1.1. Annex I Part 3 of the CLP Regulation as amended.
Skin Corr. 1A/1B/1C H314: application of additivity formula criteria Table 3.2.3 Annex I Part 3 of the CLP Regulation
Skin Irrit 2 H315: application formula additivity criteria Table 3.2.3 Annex I Part 3 of the CLP Regulation
Eye Dam 1 H318: application of additivity formula criteria Table 3.3.3 Annex I Part 3 of the CLP Regulation
Eye Irrit. 2 H319: application of the formula of the criteria additivity Table 3.3.3 Annex I Part 3 of the CLP Regulation
Eye Irrit. 2 H319: Table 3.3.3 of Annex I, Part 3 of Regulation (EC) 1272/2008 (CLP) as amended.
Skin Sens 1A/1B/1 H317 Table 3.4.5 of Annex I, Part 3 of Regulation (EC) 1272/2008 (CLP) as amended.
Resp Sens 1A/1B/1 H334 Table 3.4.5 of Annex I, Part 3 of Regulation (EC) 1272/2008 (CLP) as amended.
Muta. 1A/1B, 2 H340 - H341: Table 3.5.2 Annex I Part 3 of the CLP Regulation as amended.
Carc 1A/1B, 2 H350 - H351: Table 3.6.2 Annex I Part 3 of the CLP Regulation as amended.
Repr 1A/1B, 2 H360 - H361: Table 3.7.2 Annex I Part 3 of the CLP Regulation as amended.
STOT SE 1, 2 H370 - 371: application of calculation methods - Table 3.8.3 of Annex I, Part 3 of Regulation (EC) 1272/2008 (CLP) as amended.
STOT SE 3 H336: Chap. 3.8.3.4.5 of Annex I, Part 3 of Regulation (EC) 1272/2008 (CLP) as amended.
STOT RE 1, 2 H372 - H373: Table 3.9.4 Annex I Part 3 of the CLP Regulation as amended.
Asp Tox 1 H304: application of criteria 3.10 Annex I Part 3 of the CLP Regulation as amended.
environmental hazards were assessed using the calculation method laid down in Regulation (EC) 1272/2008 (CLP) as amended for the classification of mixtures when data exist on all or some of the components of the mixture:
toxicity to the aquatic environment acute effects: Table 4.1.1 of Annex I, Part 4 of Regulation (EC) 1272/2008 (CLP) as amended;
toxicity to the aquatic environment chronic effects: Table 4.1.2 of Annex I, Part 4 of Regulation (EC) 1272/2008 (CLP) as amended.

Note to the user:
The information contained in this sheet is based on the knowledge available to us at the date of the last version. The user must ensure the suitability and completeness of the information in relation to the specific use of the product.
It should not be interpreted as a guarantee of any specific product properties.
Since the use of the product is not under our direct control, it is the user's responsibility to observe the applicable laws and regulations regarding hygiene and safety. We accept no liability for improper use.
Provide adequate training for personnel handling chemicals.