Safety Data Sheet according to Reg. 878/2020/EU
ROBOSHINE
Safety Data Sheet dated 4/22/2026 version 2

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

1.1. Product identifier

Mixture identification:

Trade name: ROBOSHINE

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

Recommended use: N.A.

Uses advised against: N.A.

1.3. Details of the supplier of the safety data sheet

Company: FILA Solutions S.p.A. SB
Via Garibaldi, 58
35018 San Martino di Lupari (PD)
ITALIA
tel. +39.049.9467300
fax +39.049.9460753

Responsable: sds@filasolutions.com

1.4. Emergency telephone number

UNITED KINGDOM: NHS Direct 111 (In England, Scotland North Ireland) 08454647 (Wales); IRELAND 018092166

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Aquatic Chronic 3 Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of contents/container to ...

Regulation (EC) nr 648/2004 (Detergents).

Product contents:

Perfumes	< 5%
cationic surfactants	< 5%
non-ionic surfactants	< 5%

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%.

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: ROBOSHINE

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number
≥3-<5 %	propan-2-ol	CAS:67-63-0 EC:200-661-7 Index:603-117-00-0	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	01-2119457558-25
≥0.3-<0.5 %	COMPOUND OF QUATERNARY AMMONIUM, BENZYL-C12-C16-ALCHYLDIMETHYL, CHLORIDES	CAS:85409-22-9 EC:939-350-2	Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400, M-Acute:10, M-Chronic:1	01-2119970550-39

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

N.A.

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

N.A.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhaltion of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

The intended uses are indicated in section 1. No further specific uses are foreseen.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

	OEL Type	Country	Long Term mg/m3	Long Term ppm	Short Term mg/m3	Short Term ppm	Notes
propan-2-ol CAS: 67-63-0	MAK	AUSTRIA	500. 00000000	200. 00000000	2000. 00000000	800. 00000000	
	VLEP	BELGIUM	500. 00000000	200. 00000000	1000. 00000000	400. 00000000	
	TLV	DENMARK	490. 00000000	200. 00000000	980. 00000000	400. 00000000	
	VLEP	FRANCE			980. 00000000	400. 00000000	
	OEL	LATVIA	350. 00000000		600. 00000000		
	TLV	NORWAY	245. 00000000	100. 00000000			
	TLV	ROMANIA	200. 00000000	81.00000000	500. 00000000	203. 00000000	
	VLA	SPAIN	500. 00000000	200. 00000000	1000. 00000000	400. 00000000	
	OSHA PEL	UNITED STATES OF AMERICA	980. 00000000	400. 00000000			
	WEL	UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	999. 00000000	400. 00000000	1250. 00000000	500. 00000000	

Predicted No Effect Concentration (PNEC) values

	PNEC Limit	Exposure Route	Exposure Frequency	Remark
propan-2-ol CAS: 67-63-0	140.9 mg/l	Fresh Water		
	140.9 mg/l	Marine water		
	552 mg/kg dw	Freshwater sediments		

	552 mg/kg dw	Marine water sediments
	28 mg/kg dw	Soil
	140.9 mg/l	Intermittent releases (fresh water)
	2251 mg/l	Microorganisms in sewage treatments
	160 mg/kg	Secondary poisoning
COMPOUND OF QUATERNARY AMMONIUM, BENZYL-C12-C16-ALCHYLDIMETHYL, CHLORIDES CAS: 85409-22-9	0.42 µg/L	Fresh Water
	0.16 µg/L	Intermittent releases (fresh water)
	0.096 µg/L	Marine water
	0.207 µg/L	Intermittent releases (marine water)
	160 µg/L	Microorganisms in sewage treatments
	68 µg/L	Freshwater sediments
	15.75 µg/L	Marine water sediments

Derived No Effect Level (DNEL) values

	Worker Industry	Worker Professional	Consumer	Exposure Route	Exposure Frequency	Remark
propan-2-ol CAS: 67-63-0	1000 mg/m3	1000 mg/m3		Human Inhalation	Short Term, systemic effects	
	500 mg/m3	500 mg/m3		Human Inhalation	Long Term, systemic effects	
	888 mg/kg	888 mg/kg		Human Dermal	Long Term, systemic effects	
			51 mg/Kg bw/day	Human Oral	Short Term, systemic effects	
			178 mg/m3	Human Inhalation	Short Term, systemic effects	
			26 mg/Kg bw/day	Human Oral	Long Term, systemic effects	
			89 mg/m3	Human Inhalation	Long Term, systemic effects	

319 mg/kg	Human Dermal	Long Term, systemic effects

8.2. Exposure controls

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

No special precaution must be adopted for normal use.

Protection for hands:

Not needed for normal use.

Respiratory protection:

N.A.

Thermal Hazards:

N.A.

Environmental exposure controls:

N.A.

Hygienic and Technical measures

N.A.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State Liquid

Appearance and colour: Liquid Light pink

Odour: Floral

pH: 7.50

Kinematic viscosity: N.A. (Not relevant for the classification and hazards of the mixture)

Melting point / freezing point: 0 °C (32 °F)

Initial boiling point and boiling range: 100 °C (212 °F)

Flash point: > 93°C

Upper/lower flammability or explosive limits: N.A. (not flammable)

Vapour density: N.A. (not determined as it is considered irrelevant for the characterisation of the product)

Vapour pressure: N.A. (not determined as it is considered irrelevant for the characterisation of the product)

Relative density: 0.99 kg/l

Solubility in water: N.A.

Solubility in oil: N.A.

Partition coefficient (n-octanol/water): N.A. (Not applicable for mixtures.)

Auto-ignition temperature: N.A. (not self-ignitable)

Decomposition temperature: N.A. (Not applicable (aqueous mixture))

Flammability: ; Non-flammable.

Particle characteristics:

Particle size: N.A.

VOC content (g/L) in the product (2010/75/UE) 39.75

VOC content % in the product (2010/75/UE) 4.01

9.2. Other information

(Not explosive)

(not oxidizing)

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Data not available.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological Information of the Preparation

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified
	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified
	Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	Not classified
	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified
	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

propan-2-ol	a) acute toxicity	LD50 Oral Rat = 5.84 mg/kg bw
		LC50 Inhalation Rat > 10000 Ppm
		LD50 Skin Rabbit 13900 mg/kg bw
	g) reproductive toxicity	No Observed Adverse Effect Level Oral Rat 853 mg/kg
		No Observed Adverse Effect Level Oral-stomach tube Rat 500 mg/kg
		No Observed Adverse Effect Level Oral Rat 596 mg/kg 10 days
		No Observed Adverse Effect Level Oral Rat 400 mg/kg 9 days
COMPOUND OF QUATERNARY AMMONIUM, BENZYL-C12-C16-ALCHYLDIMETHYL, CHLORIDES	a) acute toxicity	LD50 Oral Rat = 795 mg/kg bw 14 days
		LC50 Inhalation Rat = 0.22 mg/l 4h
		LD50 Skin Rabbit = 3.56 ml/Kg
	b) skin corrosion/irritation	Skin Irritant Rabbit 4h
	c) serious eye damage/irritation	Eye Corrosive Rabbit 72h

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

Harmful to aquatic life with long lasting effects.

List of Eco-Toxicological properties of the product

The product is classified: Aquatic Chronic 3(H412)

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
propan-2-ol	CAS: 67-63-0 - EINECS: 200-661-7 - INDEX: 603-117-00-0	a) Aquatic acute toxicity : LC50 Fish Pimephales promelas > 9640 mg/L 96h
		a) Aquatic acute toxicity : LC50 Daphnia Magna > 9714 mg/L 24h OECD 202
COMPOUND OF QUATERNARY AMMONIUM, BENZYL-C12-C16-ALCHYLDIMETHYL, CHLORIDES	CAS: 85409-22-9 - EINECS: 939-350-2	a) Aquatic acute toxicity : LC50 Fish Salmo gairdneri = 1.7 mg/L 96h
		a) Aquatic acute toxicity : EC50 Daphnia Magna = 1.6 mg/L 48h
		a) Aquatic acute toxicity : EC50 Algae Selenastrum capricornutum = 0.03 mg/L 72h

12.2. Persistence and degradability

Component	Persitence/Degradability:	Test	Duration Value
COMPOUND OF QUATERNARY AMMONIUM, BENZYL-C12-C16-ALCHYLDIMETHYL, CHLORIDES	Readily biodegradable	OECD 301 B	28 days 95.500

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%.

12.6 Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7 Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number

N/A

14.2. UN proper shipping name

ADR-Shipping Name: N/A

IATA-Technical name: N/A

IMDG-Technical name: N/A

14.3. Transport hazard class(es)

ADR-Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

14.4. Packing group

ADR-Packing Group: N/A
IATA-Packing group: N/A
IMDG-Packing group: N/A

14.5. Environmental hazards

Toxic Ingredients Qty: 0.00
High Toxicity Ingredients Qty: 0.00
Marine pollutant: No
Environmental Pollutant: No
IMDG-EMS: N/A

14.6. Special precautions for user

Road and Rail (ADR-RID) :

ADR-Label: N/A
ADR - Hazard identification number: N/A
ADR-Special Provisions: N/A
ADR-Transport category (Tunnel restriction code): N/A

Air (IATA) :

IATA-Passenger Aircraft: N/A
IATA-Cargo Aircraft: N/A
IATA-Label: N/A
IATA-Subsidiary hazards: N/A
IATA-Erg: N/A
IATA-Special Provisioning: N/A

Sea (IMDG) :

IMDG-Stowage Code: N/A
IMDG-Stowage Note: N/A
IMDG-Subsidiary hazards: N/A
IMDG-Special Provisioning: N/A

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2018/699 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/699 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2020/878

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3, 40
Restrictions related to the substances contained: 70, 75

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

Class 3: extremely hazardous.

SVHC Substances:

No data available

Dir. 2010/75/EC (VOC directive)

Volatile Organic compounds - VOCs = 4.01 %

Volatile Organic compounds - VOCs = 39.75 g/L

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
2.6/2	Flam. Liq. 2	Flammable liquid, Category 2
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
4.1/C3	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: KAFH
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING
- 2. HAZARDS IDENTIFICATION
- 9. Physical and chemical properties