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

1.1 Product identifier

Trade name	**105 96SC 1C 1.0MM G**
Registration number (REACH)	not relevant (mixture)
Unique formula identifier (UFI)	67QH-1WWP-P00M-8QT0
Alternative number(s)	319450, UFI: 67QH-1WWP-P00M-8QT0

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

Relevant identified uses	industrial use
Uses advised against	Not to be used in private or public water systems.

1.3 Details of the supplier of the safety data sheet

HARIMATEC CZECH s.r.o.
PointPark Prague D8, Hala DC03, Zdibsko 614
250 67 Klecany
Czech Republic

Telephone: +420 284 688 922
e-mail: sds-cz@harimagroup.com
Website: https://www.harimatec.eu

e-mail (competent person)	lucie.dolska@harimagroup.com (Lucie Dolská)

1.4 Emergency telephone number

Numero telefonico di emergenza: 800452661 (operativo 24h/24h tutti i giorni)
N° telefonico Centro Antiveleni di Niguarda 02 66101029 (operativo 24h/24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

not required

2.3 Other hazards

Avoid breathing fumes given out during soldering.
Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma).
This product contains modified rosin.
Do not heat above 500 °C.

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Tin	CAS No 7440-31-5 EC No 231-141-8 REACH Reg. No 01-2119486474-28-xxxx	≥ 90	Acute Tox. 4 / H332 Aquatic Acute 1 / H400	
Silver	CAS No 7440-22-4 EC No 231-131-3 REACH Reg. No 01-2119555669-21-xxxx	1 – < 5	Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	
Copper, metal	CAS No 7440-50-8 EC No 231-159-6 Index No 029-024-00-X REACH Reg. No 01-2119480154-42-xxxx	< 1	Acute Tox. 3 / H331 Aquatic Acute 1 / H400 Aquatic Chronic 2 / H411	
Adipic acid	CAS No 124-04-9 EC No 204-673-3 Index No 607-144-00-9 REACH Reg. No 01-2119457561-38-xxxx	< 1	Eye Irrit. 2 / H319	

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
Tin	-	M-factor (acute) = 10	>4,75 $^{mg}/_{l}$/4h	inhalation: dust/mist
Silver	-	M-factor (acute) = 1.000 M-factor (chronic) = 10	-	
Copper, metal	-	-	>5,11 $^{mg}/_{l}$/4h 0,5 $^{mg}/_{l}$/4h	inhalation: vapour inhalation: dust/mist

Remarks

For full text of abbreviations: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. If eye irritation persists: Get medical advice/attention.

Following ingestion

Do NOT induce vomiting. Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma). Prolonged or repeated contact may cause skin irritation. Prolonged or repeated contact may cause eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

carbon dioxide (CO2), foam, fire extinguishing powder, water spray

Unsuitable extinguishing media

do not use water on fires where molten metal is present

5.2 Special hazards arising from the substance or mixture

High temperatures may produce heavy metal dust, fumes or vapours.
The flux medium will give rise to irritating fumes.

5.3 Advice for firefighters

Wear self-contained breathing apparatus. The product itself does not burn. Any fire extinguishing action should be appropriate to the surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

6.2 Environmental precautions

Keep away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Disposal considerations: see section 13.

6.4 Reference to other sections

Personal protective equipment: see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Extraction is necessary to remove fumes evolved during reflow. When using do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid breathing fumes given out during soldering. Do not heat above 500 °C. Personal protective equipment: see section 8.

Advice on general occupational hygiene

Employ good industrial hygiene practice. Do not eat, drink and smoke in work areas. After handling solder wash hands with soap and water before eating, drinking or smoking.

7.2 Conditions for safe storage, including any incompatibilities

Ensure good ventilation and exhaustion. Keep cool. Store in a dry place. Observe technical data sheet.

7.3 Specific end use(s)

Solder wire.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
CZ	rock dust		PEL		10					i	Zákon ČNR Sb.
CZ	rock dust		PEL		2					r	Zákon ČNR Sb.
CZ	silver	7440-22-4	PEL		0,1		0,3				Zákon ČNR Sb.
CZ	copper	7440-50-8	PEL		1		2			dust, aerosol, i	Zákon ČNR Sb.
CZ	copper	7440-50-8	PEL		0,1		0,2			fume, aerosol, r	Zákon ČNR Sb.
EU	silver	7440-22-4	IOELV		0,1						2000/39/EC

Notation

aerosol	as aerosols
Ceiling-C	ceiling value is a limit value above which exposure should not occur
dust	as dust
fume	as fume
i	inhalable fraction
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Tin	7440-31-5	DNEL	71 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Tin	7440-31-5	DNEL	10 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Copper, metal	7440-50-8	DNEL	137 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Copper, metal	7440-50-8	DNEL	273 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Copper, metal	7440-50-8	PNEC	6,3 µg/l	aquatic organisms	freshwater	short-term (single instance)
Copper, metal	7440-50-8	PNEC	5,2 µg/l	aquatic organisms	marine water	short-term (single instance)
Copper, metal	7440-50-8	PNEC	230 µg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Copper, metal	7440-50-8	PNEC	87 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Copper, metal	7440-50-8	PNEC	676 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Copper, metal	7440-50-8	PNEC	65 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

Extraction is necessary to remove fumes evolved during reflow. Ensure good ventilation and exhaustion.

Individual protection measures (personal protective equipment)

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.
Personal protective equipment should conform to the relevant EN standard.

Eye/face protection

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing. Protective eye equipment should conform to EN166.

Skin protection

- Hand protection

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced. Chemical-resistant protective gloves (EN 374).

- Type of material

NBR: acrylonitrile-butadiene rubber

- Material thickness

>= 0,4 mm

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances.

Body protection

Wear protective clothing. Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387). This recommendation should be matched to local conditions.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Colour	grey
Odour	characteristic
Melting point/freezing point	217 °C
Boiling point or initial boiling point and boiling range	not determined
Flammability	non-combustible
Lower and upper explosion limit	not relevant (solid)
Flash point	not applicable
Auto-ignition temperature	not determined
Decomposition temperature	not relevant
pH (value)	not applicable
Kinematic viscosity	not relevant
Solubility(ies)	not determined

Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available

Vapour pressure	not determined

Density and/or relative density

Density	7,5 $^{g}/_{cm^3}$

Relative vapour density	not relevant (solid)

Particle characteristics	no data available

9.2 Other information
there is no additional information

There is no additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity
Solder alloy will react with concentrated nitric acid to produce toxic fumes of nitrogen oxides.

10.2 Chemical stability
The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Solder alloy will react with concentrated nitric acid to produce toxic fumes of nitrogen oxides.

10.4 Conditions to avoid
No decomposition if stored and applied as directed.

10.5 Incompatible materials
concentrated nitric acid

10.6 Hazardous decomposition products
Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

Acute toxicity

Shall not be classified as acutely toxic.
May be harmful if swallowed or in contact with skin.

- Acute toxicity of components

Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE
Tin	7440-31-5	inhalation: dust/mist	>4,75 mg/l/4h
Copper, metal	7440-50-8	inhalation: vapour	>5,11 mg/l/4h
Copper, metal	7440-50-8	inhalation: dust/mist	0,5 mg/l/4h

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Tin	7440-31-5	oral	LD50	>2.000 $^{mg}/_{kg}$	rat
Tin	7440-31-5	inhalation: dust/mist	LC50	>4,75 $^{mg}/_{l}$/4h	rat
Tin	7440-31-5	dermal	LD50	>2.000 $^{mg}/_{kg}$	rat
Silver	7440-22-4	oral	LD50	>2.000 $^{mg}/_{kg}$	rat
Silver	7440-22-4	dermal	LD50	>2.000 $^{mg}/_{kg}$	rat
Copper, metal	7440-50-8	oral	LD50	>2.000 $^{mg}/_{kg}$	rat
Copper, metal	7440-50-8	dermal	LD50	>2.000 $^{mg}/_{kg}$	rat
Copper, metal	7440-50-8	inhalation: vapour	LC50	>5,11 $^{mg}/_{l}$/4h	rat
Adipic acid	124-04-9	oral	LD50	5.840 $^{mg}/_{kg}$	rat
Adipic acid	124-04-9	inhalation: vapour	LC50	72,6 $^{mg}/_{l}$/4h	rat
Adipic acid	124-04-9	dermal	LD50	12.870 $^{mg}/_{kg}$	rat

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin. Fumes emitted during soldering may irritate the skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant. Fumes emitted during soldering may irritate the eyes.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser. Prolonged or repeated exposure to flux fumes may result in sensitisation in sensitive workers.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure). Fumes evolved at soldering temperatures will irritate the nose, throat and lungs.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Tin	7440-31-5	LC50	>12,4 µg/l	fish	96 h
Tin	7440-31-5	ErC50	>19,2 µg/l	algae	72 h
Tin	7440-31-5	EC50	>19,2 µg/l	algae	72 h
Silver	7440-22-4	LC50	1,2 µg/l	fish	96 h
Silver	7440-22-4	ErC50	2,52 µg/l	algae	72 h
Silver	7440-22-4	EC50	0,82 µg/l	algae	72 h
Copper, metal	7440-50-8	LC50	193 µg/l	fish	96 h

12.2 Persistence and degradability
The product is not biodegradable.

12.3 Bioaccumulative potential
Data are not available.

12.4 Mobility in soil
The product is insoluble and sinks in water.

12.5 Results of PBT and vPvB assessment
Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.

12.6 Endocrine disrupting properties
Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%.

12.7 Other adverse effects
Keep away from drains, surface and ground water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Recycling/reclamation of metals and metal compounds. Otherwise dispose of in accordance with local and national regulations.

Waste treatment of containers/packagings

Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number or ID number	not subject to transport regulations
14.2 UN proper shipping name	not relevant
14.3 Transport hazard class(es)	none
14.4 Packing group	not assigned
14.5 Environmental hazards	non-environmentally hazardous acc. to the dan-

gerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)

Name of substance	Name acc. to inventory	CAS No	Restriction	No
Adipic acid	substances in tattoo inks and permanent make-up		R75	75

Legend

R75 1. Shall not be placed on the market in mixtures for use for tattooing purposes, and mixtures containing any such substances shall not be used for tattooing purposes, after 4 January 2022 if the substance or substances in question is or are present in the following circumstances:
(a) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
(b) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as reproductive toxicant category 1A, 1B or 2, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
(c) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin sensitiser category 1, 1A or 1B, the substance is present in the mixture in a concentration equal to or greater than 0,001 % by weight;
(d) in the case of a substance classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 as skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2, or as serious eye damage category 1 or eye irritant category 2, the substance is present in the mixture in a concentration equal to or greater than:
(i) 0,1 % by weight, if the substance is used solely as a pH regulator;
(ii) 0,01 % by weight, in all other cases;
(e) in the case of a substance listed in Annex II to Regulation (EC) No 1223/2009 (*1), the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight;
(f) in the case of a substance for which a condition of one or more of the following kinds is specified in column g (Product type, Body parts) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration equal to or greater than 0,00005 % by weight:
(i) “Rinse-off products”;
(ii) “Not to be used in products applied on mucous membranes”;
(iii) “Not to be used in eye products”;
(g) in the case of a substance for which a condition is specified in column h (Maximum concentration in ready for use preparation) or column i (Other) of the table in Annex IV to Regulation (EC) No 1223/2009, the substance is present in the mixture in a concentration, or in some other way, that does not accord with the condition specified in that column;
(h) in the case of a substance listed in Appendix 13 to this Annex, the substance is present in the mixture in a concentration equal to or greater than the concentration limit specified for that substance in that Appendix.
2. For the purposes of this entry use of a mixture “for tattooing purposes” means injection or introduction of the mixture into

Legend

a person's skin, mucous membrane or eyeball, by any process or procedure (including procedures commonly referred to as permanent make-up, cosmetic tattooing, micro-blading and micro-pigmentation), with the aim of making a mark or design on his or her body.
3. If a substance not listed in Appendix 13 falls within more than one of points (a) to (g) of paragraph 1, the strictest concentration limit laid down in the points in question shall apply to that substance. If a substance listed in Appendix 13 also falls within one or more of points (a) to (g) of paragraph 1, the concentration limit laid down in point (h) of paragraph 1 shall apply to that substance.
4. By way of derogation, paragraph 1 shall not apply to the following substances until 4 January 2023:
(a) Pigment Blue 15:3 (CI 74160, EC No 205-685-1, CAS No 147-14-8);
(b) Pigment Green 7 (CI 74260, EC No 215-524-7, CAS No 1328-53-6).
5. If Part 3 of Annex VI to Regulation (EC) No 1272/2008 is amended after 4 January 2021 to classify or re-classify a substance such that the substance then becomes caught by point (a), (b), (c) or (d) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the date of application of that new or revised classification is after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect on the date of application of that new or revised classification.
6. If Annex II or Annex IV to Regulation (EC) No 1223/2009 is amended after 4 January 2021 to list or change the listing of a substance such that the substance then becomes caught by point (e), (f) or (g) of paragraph 1 of this entry, or such that it then falls within a different one of those points from the one within which it fell previously, and the amendment takes effect after the date referred to in paragraph 1 or, as the case may be, paragraph 4 of this entry, that amendment shall, for the purposes of applying this entry to that substance, be treated as taking effect from the date falling 18 months after entry into force of the act by which that amendment was made.
7. Suppliers placing a mixture on the market for use for tattooing purposes shall ensure that, after 4 January 2022, the mixture is marked with the following information:
(a) the statement "Mixture for use in tattoos or permanent make-up";
(b) a reference number to uniquely identify the batch;
(c) the list of ingredients in accordance with the nomenclature established in the glossary of common ingredient names pursuant to Article 33 of Regulation (EC) No 1223/2009, or in the absence of a common ingredient name, the IUPAC name. In the absence of a common ingredient name or IUPAC name, the CAS and EC number. Ingredients shall be listed in descending order by weight or volume of the ingredients at the time of formulation. "Ingredient" means any substance added during the process of formulation and present in the mixture for use for tattooing purposes. Impurities shall not be regarded as ingredients. If the name of a substance, used as ingredient within the meaning of this entry, is already required to be stated on the label in accordance with Regulation (EC) No 1272/2008, that ingredient does not need to be marked in accordance with this Regulation;
(d) the additional statement "pH regulator" for substances falling under point (d)(i) of paragraph 1;
(e) the statement "Contains nickel. Can cause allergic reactions." if the mixture contains nickel below the concentration limit specified in Appendix 13;
(f) the statement "Contains chromium (VI). Can cause allergic reactions." if the mixture contains chromium (VI) below the concentration limit specified in Appendix 13;
(g) safety instructions for use insofar as they are not already required to be stated on the label by Regulation (EC) No 1272/2008.
The information shall be clearly visible, easily legible and marked in a way that is indelible.
The information shall be written in the official language(s) of the Member State(s) where the mixture is placed on the market, unless the Member State(s) concerned provide(s) otherwise.
Where necessary because of the size of the package, the information listed in the first subparagraph, except for point (a), shall be included instead in the instructions for use.
Before using a mixture for tattooing purposes, the person using the mixture shall provide the person undergoing the procedure with the information marked on the package or included in the instructions for use pursuant to this paragraph.
8. Mixtures that do not contain the statement "Mixture for use in tattoos or permanent make-up" shall not be used for tattooing purposes.
9. This entry does not apply to substances that are gases at temperature of 20 °C and pressure of 101,3 kPa, or generate a vapour pressure of more than 300 kPa at temperature of 50 °C, with the exception of formaldehyde (CAS No 50-00-0, EC No 200-001-8).
10. This entry does not apply to the placing on the market of a mixture for use for tattooing purposes, or to the use of a mixture for tattooing purposes, when placed on the market exclusively as a medical device or an accessory to a medical device, within the meaning of Regulation (EU) 2017/745, or when used exclusively as a medical device or an accessory to a medical device, within the same meaning. Where the placing on the market or use may not be exclusively as a medical device or an accessory to a medical device, the requirements of Regulation (EU) 2017/745 and of this Regulation shall apply cumulatively.

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

none of the ingredients are listed

Deco-Paint Directive

VOC content	0,1 %

Industrial Emissions Directive (IED)

VOC content	0,05243 %

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

Pollutant release and transfer registers (PRTR)

Name of substance	CAS No	Remarks	Threshold for releases to air (kg/year)
Copper, metal	7440-50-8	(8)	100

Legend

(8) All metals shall be reported as the total mass of the element in all chemical forms present in the release

Water Framework Directive (WFD)

List of pollutants (WFD)

Name of substance	CAS No	Listed in	Remarks
Silver		a)	
Tin		a)	
Copper, metal		a)	

Legend

a) Indicative list of the main pollutants

Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

15.2 Chemical safety assessment

A chemical safety assessment was carried out for substances with a REACH registration number.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
Acute Tox.	Acute toxicity
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)

Abbr.	Descriptions of used abbreviations
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PEL	Workplace exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
SVHC	Substance of Very High Concern

Abbr.	Descriptions of used abbreviations
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
Zákon ČNR Sb.	Sbírka zákonu: Nařízení vlády o podmínky ochrany zdraví při práci

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
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.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.