

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

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

- 1.1. Product identifier**
 Substance / mixture Lowy solution
 UFI mixture
 GTYU-91U1-9008-D2U9
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use
 Chemical production, analytical chemistry, laboratory synthesis, industrial applications.
Mixture uses advised against
 The product should not be used in ways other than those referred in Section 1.
- 1.3. Details of the supplier of the safety data sheet**
Supplier
 Name or trade name Ing. Petr Švec - PENTA s.r.o.
 Address Radiová 1122/1, Praha 10, 102 00
 Czech Republic
 Identification number (CRN) 02096013
 VAT Reg No CZ02096013
 Phone +420 226 060 681
 E-mail info@pentachemicals.eu
 Web address www.pentachemicals.eu
- Competent person responsible for the safety data sheet**
 Name Ing. Petr Švec - PENTA s.r.o.
 E-mail info@pentachemicals.eu
- 1.4. Emergency telephone number**
 European emergency number: 112 112

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**
Classification of the mixture in accordance with Regulation (EC) No 1272/2008
 The mixture is classified as dangerous.

Acute Tox. 3, H301
 Skin Irrit. 2, H315
 Skin Sens. 1, H317
 Eye Irrit. 2, H319
 Acute Tox. 4, H332
 Muta. 2, H341
 Carc. 1B, H350
 STOT RE 2, H373
 Aquatic Chronic 3, H412

Most serious adverse effects on human health and the environment

May cause an allergic skin reaction. May cause cancer. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure. Suspected of causing genetic defects. Causes serious eye irritation. Causes skin irritation. Toxic if swallowed. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram



Signal word

Danger

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

Hazardous substances

formaldehyde ...%

mercury dichloride

Hazard statements

H301	Toxic if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P260	Do not breathe vapours.
P280	Wear protective gloves.
P301+P310	IF SWALLOWED: Immediately call a doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

Supplemental information

Restricted to professional users.

2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 607-002-00-6 CAS: 64-19-7 EC: 200-580-7 Registration number: 01-2119475328-30-xxxx	acetic acid ... %	5-6	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318 Specific concentration limit: Skin Corr. 1A, H314: $C \geq 90\%$ Skin Irrit. 2, H315: $10\% \leq C < 25\%$ Skin Corr. 1B, H314: $25\% \leq C < 90\%$ Eye Irrit. 2, H319: $10\% \leq C < 25\%$	1, 3

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 605-001-00-5 CAS: 50-00-0 EC: 200-001-8 Registration number: 01-2119488953-20-xxxx	formaldehyde ...%	3-5	Acute Tox. 3, H301+H311+H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 STOT SE 3, H335 Muta. 2, H341 Carc. 1B, H350 Specific concentration limit: Skin Corr. 1B, H314: $C \geq 25\%$ Skin Irrit. 2, H315: $5\% \leq C < 25\%$ Skin Sens. 1, H317: $C \geq 0.2\%$ Eye Irrit. 2, H319: $5\% \leq C < 25\%$ STOT SE 3, H335: $C \geq 5\%$	1, 2, 4
Index: 080-010-00-X CAS: 7487-94-7 EC: 231-299-8	mercury dichloride	1-2	Acute Tox. 2, H300 Skin Corr. 1B, H314 Muta. 2, H341 Repr. 2 (**), H361f STOT RE 1 (**), H372 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	3, 4
Index: 603-001-00-X CAS: 67-56-1 EC: 200-659-6 Registration number: 01-2119433307-44-xxxx	methanol	<1	Flam. Liq. 2, H225 Acute Tox. 3, H301, H311, H331 STOT SE 1, H370 Specific concentration limit: STOT SE 1, H370: $C \geq 10\%$ STOT SE 2, H371: $3\% \leq C < 10\%$	3, 4

Notes

** another exposure route cannot be ruled out

*** reproductive toxicity: supplementary letters specify whether fetal harm (d) or fertility harm (f) may occur

- Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.
- Note D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3 of Annex VI to Regulation (EC) No 1272/2008. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier who places such a substance on the market must state on the label the name of the substance followed by the words "non-stabilised".
- A substance for which exposure limits are set.
- The use of the substance is restricted by Annex XVII of REACH Regulation

Full text of all classifications and hazard statements is given in the section 16.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

SECTION 4: First aid measures

4.1. Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet. If unconscious, put the person in the stabilized (recovery) position on his side with his head slightly bent backwards and make sure that airways are free; never induce vomiting. If the person vomits by himself, make sure that the vomit is not inhaled. In life threatening conditions first of all provide resuscitation of the affected person and ensure medical assistance. Respiratory arrest - provide artificial respiration immediately. Cardiac arrest - provide indirect cardiac massage immediately.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. Take care of your own safety, do not let the affected person walk! Beware of the contaminated clothes. Depending on the situation, call the medical rescue service and ensure medical treatment considering the frequent need of further observation for at least 24 hours.

If on skin

Remove contaminated clothes. Take off any rings, watches, bracelets before or during washing if worn in the contaminated areas of the skin. Rinse contaminated areas with a flow of water, lukewarm at best, for 10-30 minutes; do not use any brush, soap or neutralizers. Depending on the situation, call the medical rescue service and always ensure medical treatment.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. No neutralization should be performed in any case! Rinsing should be continued for 10-30 minutes from the inner to the outer eye corner to make sure that the other eye is not involved. Depending on the situation, call medical rescue service or ensure medical treatment as promptly as possible. Everyone must be referred for treatment even if affected only a little.

If swallowed

INDUCE VOMITING! Vomiting should be induced in the person only if conscious, within 1 hour from ingestion. If in doubt whether vomiting should be induced, contact the Toxicological Information Centre and give information about the substances or composition of the product as provided on the original packaging or in the safety data sheet of the product. FOLLOWING INGESTION OF TOXIC OR HIGHLY TOXIC SUBSTANCES, GIVE 10-20 CRUSHED TABLETS OF ACTIVATED CARBON, MIXED IN WATER, WITHIN NO LATER THAN 5 MINUTES - irrespective of whether vomiting could be induced. Call medical rescue service.

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

If inhaled

Cough, headache.

If on skin

May cause an allergic skin reaction.

If in eyes

Causes serious eye irritation.

If swallowed

Irritation, nausea.

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

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

5.3. Advice for firefighters

Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in the Sections 7 and 8. Do not inhale mist/vapours/spray. Prevent contact with skin and eyes.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13. In the event of leakage of the substantial amount of the product, inform fire brigade and other competent bodies. After removal of the product, wash the contaminated site with plenty of water. Do not use solvents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in concentrations exceeding the occupational exposure limits. Do not inhale mist/vapours/spray. Prevent contact with skin and eyes. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Wash hands and exposed parts of the body thoroughly after handling. Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Store locked up. Keep container tightly closed.

7.3. Specific end use(s)

In hematology.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union

Commission Directive (EU) 2017/164

Substance name (component)	Type	Value	Note
acetic acid ... % (CAS: 64-19-7)	OEL 8 hours	25 mg/m ³	
	OEL 8 hours	10 ppm	
	OEL 15 minutes	50 mg/m ³	
	OEL 15 minutes	20 ppm	

European Union

Commission Directive 2006/15/EC

Substance name (component)	Type	Value	Note
methanol (CAS: 67-56-1)	OEL 8 hours	260 mg/m ³	Skin

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

European Union

Commission Directive 2006/15/EC

Substance name (component)	Type	Value	Note
methanol (CAS: 67-56-1)	OEL 8 hours	200 ppm	Skin

European Union

Commission Directive 2009/161/EU

Substance name (component)	Type	Value	Note
mercury dichloride (CAS: 7487-94-7)	OEL 8 hours	0,02 mg/m ³	

DNEL

formaldehyde ...%					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Dermal	240 mg/kg	Chronic effects systemic		
Workers	Inhalation	9 mg/m ³	Chronic effects systemic		
Workers	Inhalation	0.375 mg/m ³	Acute effects systemic		
Consumers	Inhalation	3.2 mg/kg	Chronic effects systemic		
Consumers	Dermal	102 mg/kg	Chronic effects systemic		
Consumers	Oral	4.1 mg/kg	Chronic effects systemic		

PNEC

formaldehyde ...%			
Route of exposure	Value	Value determination	Source
Marine water	0.44 mg/l		
Soil (agricultural)	0.21 mg/l		
Drinking water	0.47 mg/l		

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. This can be achieved only by local suction or efficient general ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Protective goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear. Contaminated skin should be washed thoroughly.

Respiratory protection

Halfmask with a filter against organic vapours or a self-contained breathing apparatus as appropriate if exposure limit values of substances are exceeded or in a poorly ventilated environment.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	characteristic
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	data not available
Flammability	data not available
Lower and upper explosion limit	data not available
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	data not available
Kinematic viscosity	data not available
Solubility in water	soluble
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	data not available
Relative vapour density	data not available
Particle characteristics	data not available

9.2. Other information

not available

SECTION 10: Stability and reactivity

10.1. Reactivity

not available

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

The product is stable and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

10.5. Incompatible materials

Protect against strong acids, bases and oxidizing agents.

10.6. Hazardous decomposition products

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

SECTION 11: Toxicological information

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

Inhalation of solvent vapors above values exceeding exposure limits for working environment may result in acute inhalation poisoning, depending on the level of concentration and exposure time. No toxicological data is available for the mixture.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

Acute toxicity

Harmful if inhaled. Toxic if swallowed.

acetic acid ... %						
Route of exposure	Parameter	Value	Exposure time	Species	Sex	Value determination
Oral	LD ₅₀	3310 mg/kg		Rat (Rattus norvegicus)		
Dermal	LD ₅₀	1060 mg/kg		Rabbit		

formaldehyde ...%						
Route of exposure	Parameter	Value	Exposure time	Species	Sex	Value determination
Dermal	LD ₅₀	270 mg/kg		Rabbit		Literary studies
Inhalation (vapor)	LC ₅₀	0.578 mg/kg	4 hours	Rat		Literary studies

methanol						
Route of exposure	Parameter	Value	Exposure time	Species	Sex	Value determination
Oral	LD ₅₀	100.1 mg/kg		Rat		
Dermal	LD ₅₀	300.1 mg/kg		Rat		
Inhalation (vapor)	LC ₅₀	3.1 mg/l	4 hours	Rat		

Skin corrosion/irritation

Causes skin irritation. Data for the components of the mixture are not available.

Serious eye damage/irritation

Causes serious eye irritation. Data for the components of the mixture are not available.

Respiratory or skin sensitisation

May cause an allergic skin reaction. Data for the components of the mixture are not available.

Germ cell mutagenicity

Suspected of causing genetic defects. Data for the components of the mixture are not available.

Carcinogenicity

May cause cancer. Data for the components of the mixture are not available.

Reproductive toxicity

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Toxicity for specific target organ - single exposure

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Toxicity for specific target organ - repeated exposure

May cause damage to organs through prolonged or repeated exposure. Data for the components of the mixture are not available.

Aspiration hazard

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

11.2. Information on other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

Acute toxicity

acetic acid ... %				
Parameter	Value	Exposure time	Species	Environment
LC ₅₀	75 mg/l	96 hours	Fish (Lepomis macrochirus)	
EC ₅₀	47 mg/l	24 hours	Daphnia (Daphnia magna)	

formaldehyde ...%				
Parameter	Value	Exposure time	Species	Environment
LC ₅₀	6.7 mg/kg	96 hours	Fish (Morone saxatilis)	
EC ₅₀	5.8 mg/l	48 hours	Daphnia (Daphnia pulex)	
IC ₅₀	2.5 mg/l	72 hours	Algae (Scenedesmus subspicatus)	

methanol				
Parameter	Value	Exposure time	Species	Environment
LC ₅₀	15400 mg/l	96 hours	Fish (Lepomis macrochirus)	
EC ₅₀	>10 000 mg/kg	48 hours	Daphnia (Daphnia magna)	

12.2. Persistence and degradability

Data for the mixture are not available.

Biodegradability

methanol					
Parameter	Method	Value	Exposure time	Environment	Result
	OECD 301D	99 %		Fresh water	Easily biodegradable

12.3. Bioaccumulative potential

No data are available for either the mixture or the components.

12.4. Mobility in soil

No data are available for either the mixture or the components.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

SECTION 14: Transport information

14.1. UN number or ID number

UN 2810

14.2. UN proper shipping name

TOXIC LIQUID, ORGANIC, N.O.S. (Contains acetic acid, formaldehyde and mercury chloride.)

14.3. Transport hazard class(es)

6.1 Toxic substances

14.4. Packing group

II

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant

Additional information

Hazard identification No.

60

UN number

2810

Classification code

T1

Safety signs

6.1



Tunnel restriction code

(D/E)

Air transport - ICAO/IATA

Packaging instructions passenger

654

Cargo packaging instructions

662

Marine transport - IMDG

EmS (emergency plan)

F-A, S-A

MFAG

340

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Restrictions pursuant to Annex XVII of Regulation (EC) No. 1907/2006 (REACH), as amended

formaldehyde ...%

Restriction	Conditions of restriction
28	<p>Without prejudice to the other parts of this Annex the following shall apply to entries 28 to 30:</p> <ol style="list-style-type: none"> Shall not be placed on the market, or used, <ul style="list-style-type: none"> as substances, as constituents of other substances, or, in mixtures, for supply to the general public when the individual concentration in the substance or mixture is equal to or greater than: <ul style="list-style-type: none"> either the relevant specific concentration limit specified in Part 3 of Annex VI to Regulation (EC) No 1272/2008, or, the relevant generic concentration limit specified in Part 3 of Annex I of Regulation (EC) No 1272/2008. <p>Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of such substances and mixtures is marked visibly, legibly and indelibly as follows:</p> <p>"Restricted to professional users".</p> <ol style="list-style-type: none"> By way of derogation, paragraph 1 shall not apply to: <ol style="list-style-type: none"> medicinal or veterinary products as defined by Directive 2001/82/EC and Directive 2001/83/EC; cosmetic products as defined by Directive 76/768/EEC; the following fuels and oil products: <ul style="list-style-type: none"> motor fuels which are covered by Directive 98/70/EC, mineral oil products intended for use as fuel in mobile or fixed combustion plants, fuels sold in closed systems (e.g. liquid gas bottles); artists' paints covered by Regulation (EC) No 1272/2008; the substances listed in Appendix 11, column 1, for the applications or uses listed in Appendix 11, column 2. Where a date is specified in column 2 of Appendix 11, the derogation shall apply until the said date. devices covered by Regulation (EU) 2017/745.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

formaldehyde ...%

Restriction	Conditions of restriction
72	<p>1. Shall not be placed on the market after 1 November 2020 in any of the following:</p> <ul style="list-style-type: none"> (a) clothing or related accessories; (b) textiles other than clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin to an extent similar to clothing; (c) footwear; <p>if the clothing, related accessory, textile other than clothing or footwear is for use by consumers and the substance is present in a concentration, measured in homogeneous material, equal to or greater than that specified for that substance in Appendix 12.</p> <p>2. By way of derogation, in relation to the placing on the market of formaldehyde [CAS No 50-00-0] in jackets, coats or upholstery, the relevant concentration for the purposes of paragraph 1 shall be 300 mg/kg during the period between 1 November 2020 and 1 November 2023. The concentration specified in Appendix 12 shall apply thereafter.</p> <p>3. Paragraph 1 shall not apply to:</p> <ul style="list-style-type: none"> (a) clothing, related accessories or footwear, or parts of clothing, related accessories or footwear, made exclusively of natural leather, fur or hide; (b) non-textile fasteners and non-textile decorative attachments; (c) second-hand clothing, related accessories, textiles other than clothing or footwear (d) wall-to-wall carpets and textile floor coverings for indoor use, rugs and runners. <p>4. Paragraph 1 shall not apply to clothing, related accessories, textiles other than clothing, or footwear within the scope of Regulation (EU) 2016/425 of the European Parliament and of the Council (*) or Regulation (EU) 2017/745 of the European Parliament and of the Council (**).</p> <p>5. Paragraph 1(b) shall not apply to disposable textiles. 'Disposable textiles' means textiles that are designed to be used only once or for a limited time and are not intended for subsequent use for the same or a similar purpose.</p> <p>6. Paragraphs 1 and 2 shall apply without prejudice to the application of any stricter restrictions set out in this Annex or in other applicable Union legislation.</p> <p>7. The Commission shall review the exemption in paragraph 3(d) and, if appropriate, modify that point accordingly.</p> <p>(*) Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (OJ L 81, 31.3.2016, p. 51).</p> <p>(**) Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directives 90/385/EEC and 93/42/EEC (OJ L 117, 5.5.2017, p. 1).</p>

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

formaldehyde ...%

Restriction	Conditions of restriction
77	<p>1. Shall not be placed on the market in articles, after 6 August 2026, if, under the test conditions specified in Appendix 14, the concentration of formaldehyde released from those articles exceeds:</p> <p>(a) 0,062 mg/m³ for furniture and wood-based articles;</p> <p>(b) 0,080 mg/m³ for articles other than furniture and wood-based articles.</p> <p>The first subparagraph shall not apply to:</p> <p>(a) articles in which formaldehyde or formaldehyde releasing substances are exclusively naturally present in the materials from which the articles are produced;</p> <p>(b) articles that are exclusively for outdoor use under foreseeable conditions;</p> <p>(c) articles in constructions, that are exclusively used outside the building shell and vapour barrier and that do not emit formaldehyde into indoor air;</p> <p>(d) articles exclusively for industrial or professional use unless formaldehyde released from them leads to exposure of the general public under foreseeable conditions of use;</p> <p>(e) articles for which the restriction laid down in entry 72 applies;</p> <p>(f) articles that are biocidal products within the scope of Regulation (EU) No 528/2012 of the European Parliament and of the Council;</p> <p>(g) devices within the scope of Regulation (EU) 2017/745;</p> <p>(h) personal protective equipment within the scope of Regulation (EU) 2016/425;</p> <p>(i) articles intended to come into contact directly or indirectly with food within the scope of Regulation (EC) No 1935/2004;</p> <p>(j) second-hand articles.</p> <p>2. Shall not be placed on the market in road vehicles after 6 August 2027 if, under the test conditions specified in Appendix 14, the concentration of formaldehyde in the interior of those vehicles exceeds 0,062 mg/m³.</p> <p>The first subparagraph shall not apply to:</p> <p>(a) road vehicles exclusively for industrial or professional use unless the concentration of formaldehyde in the interior of those vehicles leads to exposure of the general public under foreseeable conditions of use;</p> <p>(b) second-hand vehicles.</p>

mercury dichloride

Restriction	Conditions of restriction
18	<p>Shall not be placed on the market, or used, as substances or in mixtures where the substance or mixture is intended for use:</p> <p>(a) to prevent the fouling by micro-organisms, plants or animals of:</p> <ul style="list-style-type: none"> — the hulls of boats, — cages, floats, nets and any other appliances or equipment used for fish or shellfish farming, — any totally or partly submerged appliances or equipment; <p>(b) in the preservation of wood;</p> <p>(c) in the impregnation of heavy-duty industrial textiles and yarn intended for their manufacture;</p> <p>(d) in the treatment of industrial waters, irrespective of their use.</p>

methanol

Restriction	Conditions of restriction
69	Shall not be placed on the market to the general public after 9 May 2019 in windscreen washing or defrosting fluids, in a concentration equal to or greater than 0,6 % by weight.

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out (mixture).

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

H300	Fatal if swallowed.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H361f	Suspected of damaging fertility.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.

Guidelines for safe handling used in the safety data sheet

P201	Obtain special instructions before use.
P260	Do not breathe vapours.
P280	Wear protective gloves.
P301+P310	IF SWALLOWED: Immediately call a doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC ₅₀	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC ₅₀	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	Lethal dose of a substance in which it can be expected death of 50% of the population
log K _{ow}	Octanol-water partition coefficient
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Carc.	Carcinogenicity
Eye Dam.	Serious eye damage
Flam. Liq.	Flammable liquid
Muta.	Germ cell mutagenicity
Repr.	Reproductive toxicity
Skin Corr.	Skin corrosion
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

The version 5.0 replaces the SDS version from 22 June 2023. Changes were made in sections 2 and 16.

More information

Classification procedure - calculation method.

Statement

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

Lowy solution

Creation date	19th February 2021	Version	5.0
Revision date	23rd November 2023		

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.