

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

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

**1.1. Product identifier** NOVALEP  
Substance / mixture mixture

**1.2. Relevant identified uses of the substance or mixture and uses advised against**  
**Mixture's intended use**

Universal adhesive

#### The use descriptors

IS Use at industrial sites  
PW Widespread use by professional workers

#### 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	NOVATO
Address	Uralská 770/6, Praha, 160 00 Czech Republic
Identification number (CRN)	62910370
VAT Reg No	CZ62910370
Phone	+420 233 339 688
E-mail	petr.johanides@novato.cz
Web address	www.novato.cz

#### Competent person responsible for the safety data sheet

Name	ABITEC
E-mail	info@abitec.cz

**1.4. Emergency telephone number**

European emergency number: 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.

Aerosol 1, H229, H222

Skin Irrit. 2, H315

STOT SE 3, H336

Aquatic Chronic 2, H411

#### Most serious adverse physico-chemical effects

The mixture is extremely flammable. The container is under pressure: do not expose to sunlight and temperatures above 50 °C. Do not even puncture the empty container or throw it into the fire. Do not spray on open flames or hot objects. Keep away from sources of ignition - No smoking. Keep out of reach of children. Incomplete combustion can release dangerous gases. Solvent vapors are heavier than air, they accumulate in lower positions. They can form an explosive mixture when mixed with air.

#### Most serious adverse effects on human health and the environment

Inhalation of the aerosol can cause headaches, fatigue, drowsiness, malaise and even narcotic conditions. Do not inhale the aerosol. Direct contact with the eyes causes serious eye irritation (watering, burning, itching, redness and conjunctivitis). The mixture shows skin sensitization, can cause an allergic reaction (rash, dermatitis, eczematous manifestations). Frequent or long-term contact with the skin causes drying or cracking of the skin or even dermatitis. Ingestion of the liquid phase may cause abdominal pain and nausea. Follow the instructions in the user manual. The mixture is classified as dangerous for the environment. Follow the instructions for use to avoid risks to people and the environment. The liquid is lighter than water and can cover the surface of the water. Avoid release to soil, ground or surface water or sewers. The full wording of the classification and H phrases is given in Sect. 16 of this safety data sheet.

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

### 2.2. Label elements

#### Hazard pictogram



#### Signal word

Danger

#### Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

#### Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501	Dispose of contents/container to in accordance with local regulations.

#### Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

### 2.3. Other hazards

Neither the mixture nor its components meet the criteria for persistent, bioaccumulative and toxic or highly persistent and highly bioaccumulative substances in accordance with Annex XIII, nor have they been included in the list drawn up in accordance with Article 59, paragraph 1, due to the content of endocrine disruptors , nor has it been determined as a substance 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 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Mixture.

#### 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
EC: 921-024-6 Registration number: 01-2119475514-35	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	25-50	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411 Specific concentration limit: Skin Irrit. 2, H315: C ≥ 10 % STOT SE 3, H336: C ≥ 20 %	3
Index: 603-019-00-8 CAS: 115-10-6 EC: 204-065-8	dimethyl ether	20-25	Flam. Gas 1, H220 Press. Gas, H280	2, 3

# SAFETY DATA SHEET

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 601-003-00-5 CAS: 74-98-6 EC: 200-827-9 Registration number: 01-2119486944-21	propane	5-10	Flam. Gas 1, H220 Press. Gas, H280	
Index: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7 Registration number: 01-2119474691-32	butane	5-10	Flam. Gas 1, H220 Press. Gas (compressed gas), H280	
Index: 601-004-00-0 CAS: 75-28-5 EC: 200-857-2	isobutane	5-10	Flam. Gas 1, H220 Press. Gas (compressed gas), H280	1, 2
Index: 606-002-00-3 CAS: 78-93-3 EC: 201-159-0	butanone	5-10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066 Specific concentration limit: Eye Irrit. 2, H319: C ≥ 10 % STOT SE 3, H336: C ≥ 20 %	3
Index: 601-006-00-1 CAS: 109-66-0 EC: 203-692-4 Registration number: 01-2119459286-30	pentane	2,5-5	Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411 EUH066 Specific concentration limit: STOT SE 3, H336: C ≥ 20 %	1, 3

### Notes

- 1 Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
- 2 Note U (Table 3): When put on the market gases have to be classified as "Gases under pressure", in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned:

Press. Gas (Comp.)  
Press. Gas (Liq.)  
Press. Gas (Ref. Liq.)  
Press. Gas (Diss.)

Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

- 3 A substance for which exposure limits are set.

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

In case of health problems or in case of doubt, consult a physician and provide him with the information in this safety data sheet. In case of life-threatening conditions, perform resuscitation. Keep unconscious person in a stabilized position and do not give anything by mouth. Avoid cooling. Do not induce vomiting. In case of spontaneous vomiting, avoid inhalation of vomitus. If burns occur, cool the burn with cold water and cover with a clean cloth.

#### If inhaled

If inhaled, leave the area, rinse the mouth with water, inhale fresh air. If breathing is difficult, give first aid and seek medical advice.

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

### **If on skin**

Wipe the product, wash thoroughly with lukewarm water, soap and treat with regenerating cream. If clothing is contaminated, remove clothing. Seek medical attention if irritation develops.

### **If in eyes**

If the affected person has contact lenses, remove them. Flush eyes wide open from the inner corner of the eye towards the outside with plenty of clean lukewarm water, especially the area under the eyelids. Rinse for at least 15 minutes, seek medical attention.

### **If swallowed**

In the case of an aerosol product, ingestion is very unlikely. Do not induce vomiting, rinse mouth with water. Seek medical attention immediately and present this safety data sheet. Danger of vomiting!

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

### **If inhaled**

Inhalation of the aerosol can cause headaches, fatigue, drowsiness, malaise, even narcotic states, exceptionally unconsciousness.

### **If on skin**

The mixture shows skin sensitization, can cause an allergic reaction (rash, dermatitis, eczematous manifestations). Frequent or long-term contact with the skin causes drying or cracking of the skin or even dermatitis.

### **If in eyes**

Direct contact with the eyes causes serious eye irritation (watering, burning, itching, redness and conjunctivitis).

### **If swallowed**

Ingestion of the liquid fraction into the respiratory system during ingestion or aspiration of vomit during subsequent vomiting may cause bronchopneumonia or pulmonary edema.

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

Immediate medical attention is not required during normal use of the mixture. Required only if symptoms reach a certain level, as indicated in paragraphs 4.1 and 4.2; is symptomatic.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Multipurpose powders, CO<sub>2</sub>, foam, water mist, sand.

#### **Unsuitable extinguishing media**

Full stream of water. Crushed water can be used to cool the containers near the fire.

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

Extremely flammable mixture. Incomplete combustion or thermal decomposition can produce toxic gases (CO<sub>x</sub>, hydrocarbons, thick smoke, etc.). Do not inhale decomposition products. Vapors are heavier than air, accumulate in lower positions, can spread over long distances. When mixed with air, they can form an explosive mixture. Danger of re-ignition. There is a risk of the pressure vessel exploding at higher temperatures.

### **5.3. Advice for firefighters**

Isolation breathing apparatus and non-flammable intervention suit. Use non-sparking tools. Cool containers exposed to fire with water spray or foam. Burning residues and post-intervention water should be disposed of as hazardous waste.

## **SECTION 6: Accidental release measures**

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

Prevent unauthorized entry, ensure free escape. Ensure adequate ventilation, do not breathe aerosol. Eliminate possible sources of ignition, do not smoke, do not handle open flame, do not expose to direct sunlight. Use non-sparking tools, avoid electrostatic charge. Avoid contact with skin and eyes - use personal protective equipment.

### **6.2. Environmental precautions**

Provide a spill area, prevent leakage into drains, soil, surface and ground water. In case of a large liquid leak, monitor the NPK concentrations resp. TLV and inform the relevant public authorities and the flow or sewerage manager.

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

**6.3. Methods and material for containment and cleaning up**

Stop the leak. In case of large leakage of liquid fraction, drain the mixture. The aerosol evaporates, ensure adequate ventilation. In case of a minor leakage of the liquid fraction, cover with a non-flammable sorbent (sand, diatomaceous earth, soil, universal sorbent, etc.), store the used sorbent in a closable waste container, mark it and dispose of it as hazardous waste. Wash contaminated area with water.

**6.4. Reference to other sections**

See the Section 7, 8 and 13.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Ensure adequate ventilation of the work area. Avoid contact with open flames and other sources of ignition. Protect against direct sunlight. Use non-sparking tools. Take precautionary measures against static discharge. Avoid the formation of gases and vapors in flammable or explosive concentrations and concentrations exceeding the maximum permissible concentrations (NPK-P) for the working atmosphere. Protect eyes and skin, do not breathe aerosol or fumes, use personal protective equipment according to section 8. Observe valid legal regulations on safety and health protection. Follow the principles of hygiene when working with chemicals, do not eat, drink or smoke while working. Wash hands with warm soap and water before breaks, meals and after work.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in original containers at temperatures up to 50 ° C in dry, well-ventilated areas. Store away from heat, protect from direct sunlight and external weather conditions. Store away from food, drink and animal feeding stuffs. Store separately as flammable. No smoking. Observe the general regulations for storage of pressure vessels. Follow the instructions on the label.

Content	Packaging type	Material of package
400 ml	aerosol can	FE

Storage class 2B - Aerosols  
 Storage temperature max. 50 °C

**7.3. Specific end use(s)**

It is not.

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

**8.1. Control parameters**

Ensure compliance with governmental regulation 361/2007 Coll., Laying down the conditions for the protection of health at work, as amended, and to fulfill the obligations contained therein.

**Czech Republic Government Regulation 330/2023 Coll.**

Substance name (component)	Type	Value	Note
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	PEL	400 mg/m <sup>3</sup>	
	NPK-P	1000 mg/m <sup>3</sup>	
dimethyl ether (CAS: 115-10-6)	PEL	1000 mg/m <sup>3</sup>	
	PEL	522 ppm	
	NPK-P	2000 mg/m <sup>3</sup>	
	NPK-P	1045 ppm	
butanone (CAS: 78-93-3)	PEL	600 mg/m <sup>3</sup>	irritating to mucous membranes (eyes, respiratory system) and skin
	PEL	200 ppm	
	NPK-P	900 mg/m <sup>3</sup>	

# SAFETY DATA SHEET

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

### Czech Republic

### Government Regulation 330/2023 Coll.

Substance name (component)	Type	Value	Note
butanone (CAS: 78-93-3)	NPK-P	300 ppm	irritating to mucous membranes (eyes, respiratory system) and skin
pentane (CAS: 109-66-0)	NPK-P	4500 mg/m <sup>3</sup>	
	PEL	3000 mg/m <sup>3</sup>	
	PEL	1000 ppm	
	NPK-P	1500 ppm	

### European Union

### Commission Directive 2000/39/EC

Substance name (component)	Type	Value	Note
dimethyl ether (CAS: 115-10-6)	OEL 8 hours	1920 mg/m <sup>3</sup>	
	OEL 8 hours	1000 ppm	
butanone (CAS: 78-93-3)	OEL 8 hours	600 mg/m <sup>3</sup>	
	OEL 8 hours	200 ppm	
	OEL 15 minutes	900 mg/m <sup>3</sup>	
	OEL 15 minutes	300 ppm	

### European Union

### Commission Directive 2006/15/EC

Substance name (component)	Type	Value	Note
pentane (CAS: 109-66-0)	OEL 8 hours	3000 mg/m <sup>3</sup>	
	OEL 8 hours	1000 ppm	

### DNEL

butanone					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	600 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Dermal	1161 mg/kg/24h	Chronic effects systemic		

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	2035 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Dermal	773 mg/kg/24h	Chronic effects systemic		

pentane					
Workers / consumers	Route of exposure	Value	Effect	Value determination	Source
Workers	Inhalation	3000 mg/m <sup>3</sup>	Chronic effects systemic		
Workers	Dermal	432 mg/kg/24h	Chronic effects systemic		

# SAFETY DATA SHEET

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

### PNEC

butanone			
Route of exposure	Value	Value determination	Source
Microorganisms in sewage treatment	709 mg/l		
Freshwater environment	55.8 mg/l		
Marine water	55.5 mg/l		
Soil (agricultural)	22.5 mg/kg		
Freshwater sediment	284.74 mg/kg		
Sea sediments	284.74 mg/kg		

pentane			
Route of exposure	Value	Value determination	Source
Microorganisms in sewage treatment	3600 µg/l		
Freshwater environment	230 µg/l		
Marine water	230 µg/l		
Soil (agricultural)	0.55 mg/kg		
Freshwater sediment	1.2 mg/kg		
Sea sediments	1.2 mg/kg		

### 8.2. Exposure controls

Ensure sufficient ventilation or extraction of the work area. In case of exceeding the NPK-P, use suitable respiratory protection. Avoid contact with skin and eyes, do not inhale aerosols, gases and vapors. Observe hygienic measures when working with chemicals. Do not eat, drink and smoke during work. Wash hands with lukewarm soap and water before breaks, meals and after work. Adapt personal protective equipment to the nature of the work.

#### Eye/face protection

Closed safety glasses.

#### Skin protection

Work clothes. Take off contaminated clothing and wash before reuse. In case of long-term or repeated exposure, use protective gloves (material eg nitrile, 0.4 mm; viton, 0.7 mm, penetration time > 480 min.), Or other according to the performed test. When choosing, follow the manufacturer's recommendations, the material must be impermeable and resistant to the components of the mixture. Replace damaged gloves.

#### Respiratory protection

It is not necessary under normal conditions. In case of increased risk of inhalation and insufficient ventilation use a mask with a filter against organic vapors and aerosols, type A. In the event of an accident or for long-term exposure, use a self-contained breathing apparatus.

#### Thermal hazard

Exposure to elevated temperatures may result in tearing of the aerosol container when overheating.

#### Environmental exposure controls

It is not necessary if handling conditions are observed. Observe normal environmental precautions, do not allow to enter drains, soil or water sources.

#### More information

Ensure compliance with governmental regulation 361/2007 Coll., Laying down the conditions for the protection of health at work, as amended, and to fulfill the obligations contained therein.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	whitish
Odour	characteristic

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	data not available
Flammability	Flammable Class I.
Lower and upper explosion limit	
bottom	0.6 %
upper	26.2 %
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	insoluble
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	8 hPa at 20 °C
Density and/or relative density	
Density	0.68 g/cm <sup>3</sup> at 20 °C
Relative vapour density	data not available
Particle characteristics	data not available

### 9.2. Other information

VOC content: 84,88 % (573,1 g/l)  
Content of organic solvents: 84.9%  
Solvent vapors can form an explosive mixture when mixed with air.  
Oxidizing properties: The mixture is not classified as oxidizing.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The mixture is flammable. In normal conditions, the mixture does not show dangerous reactions.

### 10.2. Chemical stability

The mixture is stable under normal environmental conditions, storage and handling.

### 10.3. Possibility of hazardous reactions

No dangerous reactions are known. There is a risk of the pressure vessel exploding when exposed to high temperatures.

### 10.4. Conditions to avoid

To temperatures above 50 °C, contact with open flames, possible sources of ignition and hot surfaces, sparks, direct sunlight, accumulation of static electricity. Formation of concentration within explosive limits. Vapors are heavier than air, accumulate in lower positions, can spread over long distances. They can form an explosive mixture when mixed with air. Risk of re-ignition. There is a risk of the pressure vessel exploding at higher temperatures.

### 10.5. Incompatible materials

Flammable materials, strong oxidizing agents. .

### 10.6. Hazardous decomposition products

Under normal conditions, the mixture does not decompose. Imperfect combustion or thermal decomposition produces toxic combustion products: COx, heavy smoke, hydrocarbons, etc.

## SECTION 11: Toxicological information

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

The mixture meets the criteria for classification according to EC Regulation No. 1272/2008. The mixture is classified as dangerous in the sense of EC Regulation No. 1272/2008, as amended.



# SAFETY DATA SHEET

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

### Acute toxicity

Based on available data the classification criteria are not met.

butane					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Inhalation	LC <sub>50</sub>	658 mg/l	4 hours	Rat	

butanone					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	2737 mg/kg		Rat (Rattus norvegicus)	
Dermal	LD <sub>50</sub>	6480 mg/kg		Rat	
Inhalation	LC <sub>50</sub>	34 mg/m <sup>3</sup>	4 hours	Rat (Rattus norvegicus)	

dimethyl ether					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Inhalation	LC <sub>50</sub>	308 mg/m <sup>3</sup>	4 hours	Rat (Rattus norvegicus)	

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	>5840 mg/kg		Rat	
Dermal	LD <sub>50</sub>	>2920 mg/kg		Rabbit	
Inhalation	LC <sub>50</sub>	>2 mg/l	4 hours	Rat	

isobutane					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Inhalation	LC <sub>50</sub>	658 mg/l	4 hours	Rat (Rattus norvegicus)	

pentane					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD <sub>50</sub>	>16000 mg/kg		Rat	
Inhalation	LD <sub>50</sub>	>100 mg/m <sup>3</sup>	4 hours	Rat	
Dermal	LD <sub>50</sub>	>5000 mg/kg		Rabbit	

propane					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Inhalation	LC <sub>50</sub>	658 mg/l	4 hours	Rat (Rattus norvegicus)	

### Skin corrosion/irritation

The mixture is classified as skin irritant, category 2. Irritating to skin.

### Serious eye damage/irritation

Based on available data the classification criteria are not met.

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

**Respiratory or skin sensitisation**

Based on available data the classification criteria are not met.

**Germ cell mutagenicity**

Based on available data the classification criteria are not met.

**Carcinogenicity**

Based on available data the classification criteria are not met.

**Reproductive toxicity**

Based on available data the classification criteria are not met.

**Toxicity for specific target organ - single exposure**

The mixture is classified as toxic for specific target organs after single exposure, category 3. It can cause drowsiness, dizziness, the mixture has narcotic effects.

**Toxicity for specific target organ - repeated exposure**

Based on available data the classification criteria are not met.

**Aspiration hazard**

The mixture is placed on the market in aerosol packaging, the criteria for classification are not met.

**11.2. Information on other hazards**

It does not contain substances causing disruption of the endocrine system. Inhalation of vapors causes headaches, dizziness, malaise, fatigue and general weakness, slight irritation of the respiratory tract may occur. Ingestion of the liquid fraction into the respiratory system during ingestion or aspiration of vomit during subsequent vomiting may cause bronchopneumonia or pulmonary edema. It irritates the skin (redness, itching, burning), direct contact with the eyes can cause slight short-term eye irritation (redness, burning in the eyes, tearing). Frequent or long-term contact with the skin can cause dryness, cracking of the skin and even dermatitis. Ingestion of the liquid may cause irritation of the digestive tract, abdominal pain and nausea.

**SECTION 12: Ecological information**

**12.1. Toxicity**

The ecotoxic effects of the mixture itself were not assessed. The mixture is classified as dangerous for the environment. Prevent the liquid from leaking into sewers and underground or surface water.

**Acute toxicity**

butanone				
Parameter	Value	Exposure time	Species	Environment
EC <sub>50</sub>	308 mg/l	48 hours	Invertebrates (Daphnia magna)	
LC <sub>50</sub>	2.99 mg/l	96 hours	Fish	
EC <sub>50</sub>	1.972 mg/l	8 hours	Algae	

dimethyl ether				
Parameter	Value	Exposure time	Species	Environment
EC <sub>50</sub>	>4000 mg/l	48 hours	Invertebrates (Daphnia magna)	
EC <sub>50</sub>	155 mg/l	96 hours	Algae	

# SAFETY DATA SHEET

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date 12th October 2003  
 Revision date 25th November 2022 Version 16

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane				
Parameter	Value	Exposure time	Species	Environment
LC <sub>50</sub>	2200 mg/l	96 hours	Fish (Pimephales promelas)	
EC <sub>50</sub>	3 mg/l	96 hours	Invertebrates (Daphnia magna)	
EC <sub>50</sub>	30-100 mg/l	72 hours	Pseudokirchneriella subcapitata	

pentane				
Parameter	Value	Exposure time	Species	Environment
EC <sub>50</sub>	9.74 mg/l	48 hours	Invertebrates (Daphnia magna)	
LC <sub>50</sub>	1-10 mg/l	96 hours	Fish	
EC <sub>50</sub>	1 mg/l	8 hours	Invertebrates (Daphnia magna)	

### 12.2. Persistence and degradability

Not determined, some components of the mixture are biodegradable.

### 12.3. Bioaccumulative potential

Not determined, bioaccumulation is unlikely.

### 12.4. Mobility in soil

Unspecified.

### 12.5. Results of PBT and vPvB assessment

The mixture does not contain substances from the PBT and vPvB groups according to Annex XIII of the REACH Regulation, as amended.

### 12.6. Endocrine disrupting properties

Substances with these properties in accordance with the criteria set out in Commission Regulation (EU) 2017/2100 or (EU) 2018/605 are not included.

### 12.7. Other adverse effects

Water hazard class: 2 (self-classification) Endangers water Endangers drinking water even in the case of penetration of a small amount. The mixture is toxic to aquatic organisms, it must not get into the soil, underground or surface water or sewage system. Observe the usual environmental protection measures.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Dispose of as hazardous waste. Dispose of at an authorized person or to a hazardous waste collection yard. Dispose of mixture and packaging residues in accordance with local waste disposal regulations. Dispose of contaminated packaging as hazardous waste.

#### Waste management legislation

Act No. 477/2001 Coll., On Packaging, as amended. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended.

#### Waste type code

20 01 13\* Solvents

#### Packaging waste type code

15 01 11\* metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers

15 01 10\* packaging containing residues of or contaminated by hazardous substances

(\* ) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

### SECTION 14: Transport information

**14.1. UN number or ID number**

UN 1950

**14.2. UN proper shipping name**

AEROSOLS

**14.3. Transport hazard class(es)**

2 Gases

**14.4. Packing group**

not relevant

**14.5. Environmental hazards**

No.

**14.6. Special precautions for user**

Transport in packages that match the properties of the mixture. Observe the prescribed marking for cargo.

**14.7. Maritime transport in bulk according to IMO instruments**

Can not be used.

**Additional information**

Hazard identification No.

UN number

Classification code

Safety signs



5F

2.1+hazardous for the environment



**Road transport - ADR**

Special provisions 190, 327, 344, 625

Limited quantities 1 L

Excepted quantities E0

**Packaging**

Packing instructions P207, LP200

Special packing provisions PP87, RR6, L2

Mixed packing provisions MP9

Transport category 2

Tunnel restriction code (D)

**Special provision for**

packages V14

loading, unloading and handling CV9, CV12

operation S2

**Railway transport - RID**

Special provisions 190, 327, 344, 625

Excepted quantities E0

**Packaging**

Packing instructions P207, LP200

Special packing provisions PP87, RR6, L2

Mixed packing provisions MP9

Transport category 0

**Special provision for**

packages W14

loading, unloading and handling CW9, CW12

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

### Air transport - ICAO/IATA

Packaging instructions for limited amount	Y203
Packaging instructions passenger	203
Cargo packaging instructions	203

### Marine transport - IMDG

EmS (emergency plan)	F-D, S-U
MFAG	620

## SECTION 15: Regulatory information

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

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. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Commission Delegated Regulation (EU) 2021/849 of 11 March 2021 amending, for the purposes of adapting to technical and scientific progress, Part 3 of Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labeling and packaging of substances and mixtures. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals.

### 15.2. Chemical safety assessment

No chemical hazard assessment was performed for this mixture.

#### More information

This information only indicates the basic regulations listed in this Safety Data Sheet. Please note the possible existence of additional regulations supplementing these Regulations. We refer to all applicable national, international and local regulations and regulations.

## SECTION 16: Other information

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

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

### Guidelines for safe handling used in the safety data sheet

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501	Dispose of contents/container to in accordance with local regulations.

### A list of additional standard phrases used in the safety data sheet

EUH066	Repeated exposure may cause skin dryness or cracking.
--------	---

### Other important information about human health protection

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

The mixture should not be used for any purpose other than that for which it is intended (see point 1.2). Because the supplier can not control the specific conditions of use of the mixture, it is the responsibility of the user to adapt the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and can not be considered as technical product information.

### 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 <sub>50</sub>	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
ICAO	International Civil Aviation Organization
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 <sub>50</sub>	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD <sub>50</sub>	Lethal dose of a substance in which it can be expected death of 50% of the population
log Kow	Octanol-water partition coefficient
NPK	Maximum admissible concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible Exposure Limit
ppm	Parts per million
Press. Gas (Comp.)	Gas under pressure: compressed gas
Press. Gas (Diss.)	Gas under pressure: dissolved gas
Press. Gas (Liq.)	Gas under pressure: liquefied gas
Press. Gas (Ref. Liq.)	Gas under pressure: refrigerated liquefied gas
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
Aerosol	Aerosol
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Asp. Tox.	Aspiration hazard
Eye Irrit.	Eye irritation
Flam. Gas	Flammable gas



# SAFETY DATA SHEET

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

## NOVALEP

Creation date	12th October 2003	Version	16
Revision date	25th November 2022		

Flam. Liq.	Flammable liquid
Press. Gas	Gases under pressure
Skin Irrit.	Skin irritation
STOT SE	Specific target organ toxicity - single exposure

### Training guidelines

According to § 103 and § 104 of Act No. 262/2006 Coll., The Labor Code, as amended. 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

The mixture should not be used for any purpose other than that for which it is intended (see point 1.2). Because the specific conditions of use of the substance are beyond the control of the supplier, it is the responsibility of the user to adapt the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and can not be considered as technical product information.

### 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)

Adaptation of BL updated Annex II of the REACH Regulation as amended by Commission Regulation (EU) 2020/878.

### Statement

The safety data sheet contains the data needed to ensure safety and health at work and environmental protection. These data correspond to the current state of knowledge and experience and are in accordance with applicable legal regulations. They can not be considered as a guarantee of the suitability and usability of the product for a specific application. The user is responsible for the treatment under existing laws and regulations.