

Safety data sheet
according to 1907/2006/EC, Article 31, including amending
Regulation (EU) 2020/878

Printing date 05.02.2026

Version number 1.0

Revision: 05.02.2026

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

1.1 Product identifier

- **Trade name:** LIVIUS
- **UFI:** AP13-M00C-Q00C-PDX2

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

No further relevant information available.

1.3 Details of the supplier of the safety data sheet

- **Manufacturer/Supplier:**
JT Agro Europe sp. z o.o.
Gate A, Aleja Grunwaldzka
472 80-309 Gdańsk, Poland
info@jtcrop.com
- **Further information obtainable from:** product safety department
- **1.4 Emergency telephone number:**
Poison center of the Charité Berlin: +49 30 19240
E-Mail: giftnotruf@charite.de

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4	H332 Harmful if inhaled.
Eye Irrit. 2	H319 Causes serious eye irritation.
Lact.	H362 May cause harm to breast-fed children.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07



GHS09

- **Signal word** Warning
- **Hazard statements**
H332 Harmful if inhaled.
H319 Causes serious eye irritation.

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H362 May cause harm to breast-fed children.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust.

P263 Avoid contact during pregnancy and while nursing.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / eye protection / face protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P308+P311 IF exposed or concerned: Call a POISON CENTER.

P337+P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:

EUH 208: Contains 2-ethylhexyl (2S)-2-hydroxypropanoate, Benzyl Alcohol. May produce an allergic reaction.

· 2.3 Other hazards**· Results of PBT and vPvB assessment**

· PBT: Not applicable

· vPvB: Not applicable

SECTION 3: Composition/information on ingredients**· 3.2 Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.**· Dangerous components:**

CAS: 186817-80-1 Reg.nr.: 01-2119516238-41-XXXX	2-ethylhexyl (2S)-2-hydroxypropanoate ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	25-50%
CAS: 100-51-6 EINECS: 202-859-9 Reg.nr.: 01-2119492630-38-XXXX	Benzyl Alcohol ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317 ATE: LD50 oral: 1,200 mg/kg	10-25%
CAS: 196823-11-7	Methyl-Oxirane, Blockpolymer with Oxirane, Monoisotridecyl ether ⚠ Eye Irrit. 2, H319	10-25%
CAS: 99734-09-5	Poly(oxy-1,2-ethanediyl), .alpha.- [tris(1-phenylethyl) phenyl]-.omega.- hydroxy- Aquatic Chronic 3, H412	≥10-<25%
CAS: 67-68-5 EINECS: 200-664-3	dimethyl sulfoxide ⚠ Eye Irrit. 2, H319	≥2.5-<10%
CAS: 64742-94-5 EINECS: 265-198-5 Reg.nr.: 01-2119510128-50-XXXX	Solvent naphtha (petroleum), heavy arom. ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	≥2.5-<10%

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CAS: 907204-31-3	3-(difluoromethyl)-1-methyl-N-(3',4',5'-trifluorobiphenyl-2-yl)pyrazole-4-carboxamide ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Lact., H362	2.5-10%
CAS: 68953-96-8 Reg.nr.: 01-2119964467-24-XXXX	Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salt ⚠ Eye Dam. 1, H318; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H312; Skin Irrit. 2, H315 ATE: LD50 dermal: 1,100 mg/kg	≥3-<10%
CAS: 78330-21-9	ALKOHOLE C11-C14-ISO-, C13-REICH, ETHOXYLIERT ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302 ATE: LD50 oral: 500 mg/kg	≥2.5-<3%

· **Regulation (EC) No 648/2004 on detergents / Labelling for contents**

perfumes (BENZYL ALCOHOL)

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures**· **4.1 Description of first aid measures**· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Wash with soap and water. If skin irritation occurs, seek medical advice.· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.· **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures· **5.1 Extinguishing media**· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.· **5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

· **5.3 Advice for firefighters**· **Protective equipment:** Mouth respiratory protective device.**SECTION 6: Accidental release measures**· **6.1 Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

· **6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

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· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Dispose contaminated material as waste according to section 13.
 Ensure adequate ventilation.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.

· **Information about fire - and explosion protection:** Keep respiratory protective device available.

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

· **Storage:**

- *Requirements to be met by storerooms and receptacles:* No special requirements.
- *Information about storage in one common storage facility:* Not required
- *Further information about storage conditions:* Keep container tightly sealed.
- *Storage class (TRGS):* 12

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· *Additional information:* The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· *General protective and hygienic measures:*

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.
 Avoid contact with the eyes and skin.

· *Respiratory protection:*

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· *Hand protection*



Protective gloves

· *Material of gloves*

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- *Penetration time of glove material*

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- *Eye/face protection*



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· **General Information**

· <i>Physical state</i>	Liquid
· <i>Colour:</i>	According to product specification
· <i>Odour:</i>	Characteristic
· <i>Odour threshold:</i>	Not determined
· <i>Melting point/freezing point:</i>	Undetermined
· <i>Boiling point or initial boiling point and boiling range</i>	Undetermined
· <i>Flammability</i>	Not applicable
· <i>Lower and upper explosion limit</i>	
· <i>Lower:</i>	Not determined
· <i>Upper:</i>	Not determined
· <i>Flash point:</i>	Not applicable
· <i>Decomposition temperature:</i>	Not determined
· <i>pH</i>	Not determined
· <i>Viscosity:</i>	
· <i>Kinematic viscosity</i>	Not determined
· <i>Dynamic:</i>	Not determined
· <i>Solubility</i>	
· <i>water:</i>	Not miscible or difficult to mix.
· <i>Partition coefficient n-octanol/water (log value)</i>	Not determined
· <i>Vapour pressure:</i>	Not determined
· <i>Density and/or relative density</i>	
· <i>Density:</i>	Not determined
· <i>Relative density</i>	Not determined
· Density (@15°C)	Not determined
· <i>Vapour density</i>	Not determined

· 9.2 Other information

· **Appearance:**

· *Form:* Fluid

· **Important information on protection of health and environment, and on safety.**

· <i>Ignition temperature:</i>	Product is not selfigniting.
· <i>Explosive properties:</i>	Product does not present an explosion hazard.
· <i>Solvent content:</i>	
· <i>Organic solvents:</i>	<35.0 %
· <i>VOC (EC)</i>	<350.0 g/l
· Change in condition	
· <i>Evaporation rate</i>	Not determined

· **Information with regard to physical hazard classes**

· <i>Explosives</i>	Void
· <i>Flammable gases</i>	Void
· <i>Aerosols</i>	Void
· <i>Oxidising gases</i>	Void

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· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if inhaled.

· **LD/LC50 values relevant for classification:**

Inhalative	LC50 (4h)	<5.32 mg/l (rat)
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186817-80-1 2-ethylhexyl (2S)-2-hydroxypropanoate

Oral	LD50	2,000 mg/kg (rat)
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100-51-6 Benzyl Alcohol

Oral	LD50	1,200 mg/kg (ATE) 1,230 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50 (4h)	11 mg/l (rat)

67-68-5 dimethyl sulfoxide

Oral	LD50	14,500 mg/kg (rat)
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68953-96-8 Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salt

Oral	LD50	1,000-1,600 mg/kg (rat)
Dermal	LD50	1,100 mg/kg (ATE)

78330-21-9 ALKOHOLE C11-C14-ISO-, C13-REICH, ETHOXYLIERT

Oral	LD50	500 mg/kg (ATE)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye irritation.

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- **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** May cause harm to breast-fed children.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

- **Other information** No further relevant information available.

SECTION 12: Ecological information

· **12.1 Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **12.2 Persistence and degradability** No further relevant information available.

- **12.3 Bioaccumulative potential** No further relevant information available.

- **12.4 Mobility in soil** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable

- **vPvB:** Not applicable

· **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

- **12.7 Other adverse effects** No further relevant information available.

- **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

HP4	Irritant - skin irritation and eye damage
HP6	Acute Toxicity
HP13	Sensitising
HP14	Ecotoxic

· **Uncleaned packaging:**

- **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN number or ID number · ADR, IMDG, IATA	UN3082
· 14.2 UN proper shipping name · ADR · IMDG, IATA	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
· 14.3 Transport hazard class(es) · ADR, IMDG  · Class · Label	9 Miscellaneous dangerous substances and articles. 9
· IATA  · Class · Label	9 Miscellaneous dangerous substances and articles. 9
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Special marking (IATA):	Product contains environmentally hazardous substances: ALKOHOLE C11-C14-ISO-, C13-REICH, ETHOXYLIERT Symbol (fish and tree)
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F A
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 (-)
· IMDG · Limited quantities (LQ)	5L

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· <i>Excepted quantities (EQ)</i>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. 9, III

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: (Substances not listed)**

None of the ingredients is listed.

· **Directive 2012/18/EU**· *Named dangerous substances - ANNEX I* None of the ingredients is listed.· *Seveso category E2* Hazardous to the Aquatic Environment· *Qualifying quantity (tonnes) for the application of lower-tier requirements* 200 t· *Qualifying quantity (tonnes) for the application of upper-tier requirements* 500 t· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3· **REGULATION (EU) 2019/1148**· *Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))*

None of the ingredients is listed.

· *Annex II - REPORTABLE EXPLOSIVES PRECURSORS*

None of the ingredients is listed.

· *Regulation (EC) No 273/2004 on drug precursors*

None of the ingredients is listed.

· *Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors*

None of the ingredients is listed.

· **National regulations:**· *VOC (EU)* <35.00 %· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**· **Disclaimer**

This safety data sheet contains only safety relevant information. The information is based on the state of our knowledge at the time of revision, however, it does not constitute a guarantee of product properties, product information or product specifications and does not establish a contractual legal relationship. This document is only valid in its unchanged form. In the event of changes by third parties, the exhibitor accepts no responsibility for form and content or for any damages or claims arising from such changes. The information is not transferable to other products. If the product named in this safety data sheet is mixed, blended or processed with other materials or is subjected to processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise. The data sheet does not release the user from the obligation to ensure that he acts in accordance with all regulations in connection with his activity.

· **Relevant phrases**

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

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H336 May cause drowsiness or dizziness.

H362 May cause harm to breast-fed children.

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.

H412 Harmful to aquatic life with long lasting effects.

· **Contact:** MSDS authorized Person· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Lact.: Reproductive toxicity – effects on or via lactation

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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