

This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: GranLux® MEAF 50

Other means of identification:

Non-applicable

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

Relevant uses: Dust control, anti-icing, heat transfer, cutting fluid, hydraulic fluid, fire prevention. For professional users only.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Details of the supplier of the safety data sheet:

Oy Granula Ab Ltd. Rautatienkatu 2 FI-48100 Kotka - Finland Phone: +358 5 210 5200

Phone: +358 5 210 5200 info@granula.com

1.4 Emergency telephone number: Emergency telephone number Europe: 112

SECTION 2: HAZARDS IDENTIFICATION **

2.1 Classification of the substance or mixture:

The classification for the product based on the theoretical calculation would also give the mixture the classification Eye Dam. 1 (Serious eye damage, category 1; H 318) and Skin Corr. 1B (Skin corrosion, category 1B; H314), but according to the results of scientific tests, the product does not need to be classified as dangerous for the eyes or the skin. The skin corrosion tests were done according to the OECD 439 method and the possible eye damaging tests are performed in vitro using the cell line L929.

CLP Regulation (EC) No 1272/2008:

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302

Eye Irrit. 2: Eye irritation, Category 2, H319

STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Warning



Hazard statements:

Acute Tox. 4: H302 - Harmful if swallowed. Eye Irrit. 2: H319 - Causes serious eye irritation. STOT SE 3: H335 - May cause respiratory irritation.

Precautionary statements:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling

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

P280: Wear protective gloves/protective clothing/eye protection.

P312: Call a POISON CENTER/doctor if you feel unwell.

P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste

Substances that contribute to the classification

Formic acid; 2-aminoethanol

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

Endocrine-disrupting properties: The product does not meet the criteria.

- CONTINUED ON NEXT PAGE -

^{**} Changes with regards to the previous version



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Neutral ionogenic mixture

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

	Identification		Chemical name/Classification				
CAS:	141-43-5	2-aminoethanol(1)	-aminoethanol ⁽¹⁾ ATP CLP00				
	205-483-3 603-030-00-8 01-2119486455-28- XXXX	Regulation 1272/2008	Acute Tox. 4: H302+H312+H332; Skin Corr. 1B: H314 - Danger	15 - <25 %			
CAS:	64-18-6	Formic acid(1)	Self-classified				
	200-579-1 607-001-00-0 01-2119491174-37- XXXX	Regulation 1272/2008	Acute Tox. 3: H331; Acute Tox. 4: H302; Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Corr. 1A: H314; EUH071 - Danger	15 - <25 %			

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
2-aminoethanol CAS: 141-43-5 EC: 205-483-3	% (w/w) >=5: STOT SE 3 - H335

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
2-aminoethanol	LD50 oral	Non-applicable	
CAS: 141-43-5	LD50 dermal	Non-applicable	
EC: 205-483-3	LC50 inhalation	11 mg/L (ATEi)	

^{**} Changes with regards to the previous version

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or if necessary shower the affected person thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 4: FIRST AID MEASURES (continued)

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

- CONTINUED ON NEXT PAGE -

Date of compilation: 26/04/2017 Revised: 26/05/2023 Version: 4 (Replaced 3) **Page 3/11**



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 7: HANDLING AND STORAGE (continued)

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification		Occ	Occupational exposure limits			
Formic acid		IOELV (8h)	5 ppm	9 mg/m ³		
CAS: 64-18-6	EC: 200-579-1	IOELV (STEL)				
2-aminoethanol		IOELV (8h)	1 ppm	2,5 mg/m ³		
CAS: 141-43-5	EC: 205-483-3	IOELV (STEL)	3 ppm	7,6 mg/m ³		

DNEL (Workers):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
2-aminoethanol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 141-43-5	Dermal	Non-applicable	Non-applicable	3 mg/kg	Non-applicable
EC: 205-483-3	Inhalation	Non-applicable	Non-applicable	1 mg/m³	0,51 mg/m ³
Formic acid	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 64-18-6	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 200-579-1	Inhalation	Non-applicable	Non-applicable	Non-applicable	9,5 mg/m ³

DNEL (General population):

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
2-aminoethanol	Oral	Non-applicable	Non-applicable	1,5 mg/kg	Non-applicable
CAS: 141-43-5	Dermal	Non-applicable	Non-applicable	1,5 mg/kg	Non-applicable
EC: 205-483-3	Inhalation	Non-applicable	Non-applicable	0,18 mg/m ³	0,28 mg/m ³



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
Formic acid	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 64-18-6	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 200-579-1	Inhalation	Non-applicable	Non-applicable	Non-applicable	3 mg/m³

PNEC:

Identification				
2-aminoethanol	STP	100 mg/L	Fresh water	0,07 mg/L
CAS: 141-43-5	Soil	1,29 mg/kg	Marine water	0,007 mg/L
EC: 205-483-3	Intermittent	0,028 mg/L	Sediment (Fresh water)	0,357 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,036 mg/kg
Formic acid	STP	7,2 mg/L	Fresh water	2 mg/L
CAS: 64-18-6	Soil	1,5 mg/kg	Marine water	0,2 mg/L
EC: 200-579-1	Intermittent	1 mg/L	Sediment (Fresh water)	13,4 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	1,34 mg/kg

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory hand protection	Protective gloves against minor risks	CATI		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
Mandatory face protection	Panoramic glasses against splash/projections.	CATII	EN 166:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing	CATI		Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
*	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	- ()	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011
Emergency shower		Eyewash stations	

- CONTINUED ON NEXT PAGE -

Date of compilation: 26/04/2017 Revised: 26/05/2023 Version: 4 (Replaced 3) **Page 5/11**



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 20 °C:

Appearance:

Colour:

Colour:

Characteristic

Odour threshold:

Non-applicable *

Volatility:

Boiling point at atmospheric pressure: 100 °C Vapour pressure at 20 °C: <3 Pa

Vapour pressure at 50 °C:

Evaporation rate at 20 °C:

Non-applicable *

Non-applicable *

Product description:

Density at 20 °C: 1099 kg/m³ Relative density at 20 °C: 1,099

Dynamic viscosity at 20 °C:

Kinematic viscosity at 20 °C:

Kinematic viscosity at 40 °C:

Non-applicable *

Non-applicable *

Non-applicable *

pH: 6 - 8

Vapour density at 20 °C:

Partition coefficient n-octanol/water 20 °C:

Solubility in water at 20 °C:

Non-applicable *

Non-applicable *

Highly water-soluble

Decomposition temperature:

Non-applicable *

Melting point/freezing point: -50 °C

Flammability:

Flash Point: >150 °C

Flammability (solid, gas):

Autoignition temperature:

Lower flammability limit:

Upper flammability limit:

Non-applicable *

Non-applicable *

Particle characteristics:

Median equivalent diameter: Non-applicable

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties: Non-applicable *

Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -

Date of compilation: 26/04/2017 Revised: 26/05/2023 Version: 4 (Replaced 3) **Page 6/11**



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Corrosive to metals:

Heat of combustion:

Aerosols-total percentage (by mass) of flammable

Non-applicable *

Non-applicable *

components:

Other safety characteristics:

Surface tension at 20 °C:

Refraction index:

Non-applicable *

Non-applicable *

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

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

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

- A- Ingestion (acute effect):
 - Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
 - Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.
- B- Inhalation (acute effect):

Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.

- Acute toxicity: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract
- Corrosivity/Irritability:
- C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -

Date of compilation: 26/04/2017 Revised: 26/05/2023 Version: 4 (Replaced 3) Page 7/11

^{*}Not relevant due to the nature of the product, not providing information property of its hazards.



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Produces eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.

 IARC: Non-applicable
 - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
 - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- E- Sensitizing effects:
 - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
 - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- F- Specific target organ toxicity (STOT) single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

- G- Specific target organ toxicity (STOT)-repeated exposure:
 - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
 - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

The classification for the product based on the theoretical calculation would also give the mixture the classification Eye Dam. 1 (Serious eye damage, category 1; H 318) and Skin Corr. 1B (Skin corrosion, category 1B; H314), but according to the results of scientific tests, the product does not need to be classified as dangerous for the eyes or the skin. The skin corrosion tests were done according to the OECD 439 method and the possible eye damaging tests are performed in vitro using the cell line L929.

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Formic acid	LD50 oral	730 mg/kg	Rat
CAS: 64-18-6	LD50 dermal	>2000 mg/kg	
EC: 200-579-1	LC50 inhalation	7,85 mg/L (4 h)	Rat
2-aminoethanol	LD50 oral	1089 mg/kg	Rat
CAS: 141-43-5	LD50 dermal	1100 mg/kg	
EC: 205-483-3	LC50 inhalation	11 mg/L (ATEi)	

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Non-applicable

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Acute toxicity:

- CONTINUED ON NEXT PAGE -

Date of compilation: 26/04/2017 Revised: 26/05/2023 Version: 4 (Replaced 3) Page 8/11



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification		Concentration	Species	Genus
2-aminoethanol	LC50	349 mg/L (96 h)	Cyprinus carpio	Fish
CAS: 141-43-5	EC50	65 mg/L (48 h)	Daphnia magna	Crustacean
EC: 205-483-3	EC50	22 mg/L (72 h)	Scenedesmus subspicatus	Algae

Chronic toxicity:

Identification		Concentration	Species	Genus
2-aminoethanol	NOEC	1,24 mg/L	Oryzias latipes	Fish
CAS: 141-43-5 EC: 205-483-3	NOEC	0,85 mg/L	Daphnia magna	Crustacean
Formic acid	NOEC	Non-applicable		
CAS: 64-18-6 EC: 200-579-1	NOEC	100 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
2-aminoethanol	BOD5	Non-applicable	Concentration	20 mg/L
CAS: 141-43-5	COD	Non-applicable	Period	21 days
EC: 205-483-3	BOD5/COD	Non-applicable	% Biodegradable	90 %
Formic acid	BOD5	Non-applicable	Concentration	18 mg/L
CAS: 64-18-6	COD	Non-applicable	Period	28 days
EC: 200-579-1	BOD5/COD	Non-applicable	% Biodegradable	97 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccu	Bioaccumulation potential		
2-aminoethanol	BCF	3		
CAS: 141-43-5	Pow Log	-1.31		
EC: 205-483-3	Potential	Low		
Formic acid	BCF	3.2		
CAS: 64-18-6	Pow Log			
EC: 200-579-1	Potential	Low		

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
2-aminoethanol	Koc	0.27	Henry	3,7E-5 Pa·m³/mol
CAS: 141-43-5	Conclusion	Very High	Dry soil	No
EC: 205-483-3	Surface tension	5,025E-2 N/m (25 °C)	Moist soil	No
Formic acid	Koc	31	Henry	1,9E-2 Pa·m³/mol
CAS: 64-18-6	Conclusion	Very High	Dry soil	Non-applicable
EC: 200-579-1	Surface tension	3,862E-2 N/m (25 °C)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Type of waste (Regulation (EU) No 1357/2014):

Non-applicable



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Formic acid (Product-type 2, 3, 4, 5)

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Shall not be used in:

- —ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- -tricks and jokes,
- —games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION **

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

- CONTINUED ON NEXT PAGE -

Date of compilation: 26/04/2017 Revised: 26/05/2023 Version: 4 (Replaced 3) Page 10/11

^{**} Changes with regards to the previous version



This SDS is an English translation of COMMISSION REGULATION (EU) 2020/878, without any country-specific legislation

GranLux® MEAF 50



SECTION 16: OTHER INFORMATION ** (continued)

COMMISSION REGULATION (EU) 2020/878

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3):

· Removed substances

Water (7732-18-5)

Substances that contribute to the classification (SECTION 2):

· New declared substances

2-aminoethanol (141-43-5)

Formic acid (64-18-6)

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

· Hazard statements

Texts of the legislative phrases mentioned in section 2:

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Acute Tox. 3: H331 - Toxic if inhaled.

Acute Tox. 4: H302 - Harmful if swallowed.

Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.

Eye Dam. 1: H318 - Causes serious eye damage. Flam. Liq. 3: H226 - Flammable liquid and vapour.

Skin Corr. 1A: H314 - Causes severe skin burns and eye damage.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

http://echa.europa.eu

http://eur-lex.europa.eu

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

^{**} Changes with regards to the previous version