SAFETY DATA SHEET

EKOPRODUR S11E-MAX POLY

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

Date of issue : 2022-07-11
Date of revision : 2025-03-06
Version : 3

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

1.1 Product identifier

Product name : EKOPRODUR S11E-MAX POLY
Chemical name : Not available.
EC number : Mixture.
Other means of identification : Not applicable.

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

Identified uses
For production of semi rigid PU foam

Uses advised against	Reason
Not determined.	Not determined.

1.3 Details of the supplier of the safety data sheet

PCC Prodex Sp. z o.o., ul. Sienkiewicza 4, 56-120 Brzeg Dolny, Poland
Phone: (+48) 71 794 3413

e-mail address of person responsible for this SDS : prodex@pcc.eu

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : Not available.

Supplier

Telephone number : Telephone: +48 71 794 2555, +48 71 794 2441 (available 24h/day) or +48 71 794 2690 (fax) at PCC Rokita SA or the closest local Fire Brigade

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Skin Irrit. 2, H315
Eye Dam. 1, H318
Carc. 2, H351

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H351 - Suspected of causing cancer. (oral)

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
P264 - Wash hands thoroughly after handling.

Response : P308 + P313 - IF exposed or concerned: Get medical advice or attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : Reaction products of phosphoryl trichloride and 2-methyloxirane
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)
2-[2-(dimethylamino)ethoxy]ethan-1-ol

Supplemental label elements : Not applicable.

2.3 Other hazards

Results of PBT and vPvB assessment : This mixture does not contain any substances that are assessed to be a PBT or a vPvB at a concentration ≥ 0.1% (w/w).

Other hazards which do not result in classification : The product does not contain components included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, and identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration ≥ 0.1% (w/w).

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Reaction products of phosphoryl trichloride and 2-methyloxirane	REACH #: 01-2119486772-26 EC: 807-935-0 CAS: 1244733-77-4	10 - 15	Acute Tox. 4, H302 Carc. 2, H351 (oral) Aquatic Chronic 3, H412	ATE [Oral] = 632 mg/kg	[1]
Alcohols, C9-11, ethoxylated	REACH #: Polymer CAS: 68439-46-3	3 - 5	Acute Tox. 4, H302 Eye Irrit. 2, H319	ATE [Oral] = 1378 mg/kg	[1]
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	REACH #: 01-2119972935-21	1 - 2.5	Acute Tox. 4, H302 Acute Tox. 3, H311	ATE [Oral] = 677 mg/kg	[1]

	EC: 221-220-5 CAS: 3033-62-3		Acute Tox. 4, H332 Skin Corr. 1B, H314 Eye Dam. 1, H318	ATE [Dermal] = 314 mg/kg ATE [Inhalation (dusts and mists)] = 4 mg/l	
2-[2-(dimethylamino)ethoxy] ethan-1-ol	REACH #: 01-2119976346-26 EC: 216-940-1 CAS: 1704-62-7	1 - 2	Acute Tox. 4, H312 Skin Corr. 1C, H314 Eye Dam. 1, H318 **See Section 16 for the full text of the H statements declared above.**	ATE [Dermal] = 1100 mg/kg	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	:	Adverse symptoms may include the following: pain watering redness
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	:	Adverse symptoms may include the following: stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use an extinguishing agent suitable for the surrounding fire. Use dry chemical, CO_2, alcohol-resistant foam or water spray (fog).
Unsuitable extinguishing media	:	Avoid heavy hose streams.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	Decomposition products may include the following materials: carbon dioxide carbon monoxide (CO) nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 10 to 25°C (50 to 77°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations : No information available on uses other than those mentioned in subsection 1.2.

Industrial sector specific solutions : No information available on uses other than those mentioned in subsection 1.2.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Reaction products of phosphoryl trichloride and 2-methyloxirane	DNEL	Long term Oral	0,52 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1,04 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1,45 mg/m³	General population	Systemic
	DNEL	Short term Oral	2 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2,91 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	5,6 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	8,2 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	22,6 mg/m³	Workers	Systemic
N,N,N',N'-tetramethyl-2,2'-oxybis (ethylamine)	DNEL	Long term Inhalation	0,013 mg/m³	General population	Local
	DNEL	Long term Inhalation	0,041 mg/m³	General population	Systemic
	DNEL	Long term Oral	0,047 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0,08 mg/m³	Workers	Local
	DNEL	Long term Inhalation	0,16 mg/m³	Workers	Systemic
2-[2-(dimethylamino)ethoxy]ethan-1-ol	DNEL	Long term Oral	1,25 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	24,7 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	4,9 mg/kg bw/day	Workers	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
Reaction products of phosphoryl trichloride and 2-methyloxirane	Fresh water	0,32 mg/l	Assessment Factors
	Marine water	0,032 mg/l	Assessment Factors
	Fresh water sediment	11,5 mg/kg	Equilibrium Partitioning
	Marine water sediment	1,15 mg/kg	Equilibrium Partitioning
	Sewage Treatment Plant	19,1 mg/l	Assessment Factors
	Soil	0,34 mg/kg	Assessment Factors
	Secondary Poisoning	11,6 mg/kg	Assessment Factors
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	Fresh water	0,023 mg/l	-
	Marine water	0,002 mg/l	-
	Sewage Treatment Plant	7,2 mg/l	-
	Fresh water sediment	0,099 mg/kg	-
	Marine water sediment	0,002 mg/kg	-
2-[2-(dimethylamino)ethoxy]ethan-1-ol	Fresh water	0,1 mg/l	Assessment Factors

	Marine water	0,01 mg/l	Assessment Factors
	Sewage Treatment Plant	100 mg/l	Assessment Factors
	Fresh water sediment	0,75 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	0,075 mg/kg dwt	Equilibrium Partitioning
	Soil	0,091 mg/kg dwt	Equilibrium Partitioning

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical product, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Wear suitable gloves tested to EN374. In case of a long-term direct exposure, nitrile gloves >0.4 mm thick, of minimum time of penetration 480 min should be used. In a case of a short-term direct exposure, nitrile gloves >0.2 mm thick, of minimum time of penetration 30 min should be used. Remember that a breakthrough time for a material that the gloves are made of may be different for different manufacturers.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Lab coat

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Color : Colourless to yellow [Light]

Odor : Characteristic. [Slight]

Melting point/freezing point : Lack of data.

Initial boiling point and boiling range : Lack of data.

Flammability	:	Lack of data.
Lower and upper explosion limit	:	Lack of data.
Flash point	:	Lack of data.
Auto-ignition temperature	:	Lack of data.
Decomposition temperature	:	Lack of data.
pH	:	11
Viscosity Kinematic/Dynamic	:	Dynamic: 350 to 550 mPa·s [20°C]
Solubility(ies)	:	
Lack of data.		
Solubility in water	:	Lack of data.
Partition coefficient: n-octanol/ water	:	Not applicable.
Vapor pressure	:	Lack of data.
Relative density	:	Lack of data.
Density	:	1,08 to 1,12 g/cm³ [20°C (68°F)]
Vapor density	:	Lack of data.
Explosive properties	:	Lack of data.
Oxidizing properties	:	Lack of data.
Particle characteristics		
Median particle size	:	Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	Under normal conditions the product is not reactive.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	Protect from sunlight and store in well-ventilated place. During storage avoid temperatures outside the range specified in section 7.2. Avoid all possible sources of ignition (spark or flame).
10.5 Incompatible materials	:	isocyanate
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Reaction products of phosphoryl trichloride and 2-methyloxirane	LC50 Inhalation Vapor	Rat - Male, Female	>4,6 mg/l	4 hours
	LC50 Inhalation Vapor	Rat - Male, Female	>7 mg/l	4 hours
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Female	632 mg/kg	-
	LD50 Oral	Rat - Male	<2000 mg/kg	-
	NOAEL Oral	Rat	200 mg/kg	-
Alcohols, C9-11, ethoxylated	LD50 Oral	Rat	1378 mg/kg	-
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	LD50 Oral	Rat	571 mg/kg	-

Conclusion/Summary : No known significant effects or critical hazards.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
EKOPRODUR S11E-MAX POLY	3957,9	14415,7	N/A	N/A	228,6
Reaction products of phosphoryl trichloride and 2-methyloxirane	632	N/A	N/A	N/A	N/A
Alcohols, C9-11, ethoxylated	1378	N/A	N/A	N/A	N/A
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	677	314	N/A	N/A	4
2-[2-(dimethylamino)ethoxy]ethan-1-ol	N/A	1100	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Reaction products of phosphoryl trichloride and 2-methyloxirane	Eyes - Not irritant	Rabbit	-	-	72 hours
	Skin - Not irritant	Rabbit	-	-	72 hours
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	Eyes - Severe irritant	Rabbit	-	1 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 250 ug	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Severe irritant	Rabbit	-	500 mg	-
2-[2-(dimethylamino)ethoxy]ethan-1-ol	Eyes - Severe irritant	Rabbit	-	24 hours 750 ug	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	264 hours 100 mg l	-

Conclusion/Summary

Skin : Irritating to skin.

Eyes : Will cause serious damage to the eyes.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Reaction products of phosphoryl trichloride and 2-methyloxirane	skin	Mouse	Not sensitizing

Conclusion/Summary

Skin : No known significant effects or critical hazards.

Respiratory : No known significant effects or critical hazards.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Reaction products of phosphoryl trichloride and 2-methyloxirane	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Positive
	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 489	Experiment: In vivo Subject: Mammalian-Animal	Negative

Conclusion/Summary : No known significant effects or critical hazards.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Reaction products of phosphoryl trichloride and 2-methyloxirane	Positive - Oral - NOAEL	Mouse	329 mg/kg bw/ day	2 years

Conclusion/Summary : Suspected of causing cancer if swallowed.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Reaction products of phosphoryl trichloride and 2-methyloxirane	-	-	Negative	Rabbit	Oral	-
	-	Negative	-	Rat	Oral	-

Conclusion/Summary : No known significant effects or critical hazards.

Teratogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

No known significant effects or critical hazards.

Specific target organ toxicity (repeated exposure)

No known significant effects or critical hazards.

Aspiration hazard

No known significant effects or critical hazards.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Eyes.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Irritating to eyes and skin. Causes serious eye damage.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : Irritating to eyes and skin. Causes serious eye damage.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Reaction products of phosphoryl trichloride and 2-methyloxirane	Sub-chronic LOAEL Oral	Rat	52 mg/kg	13 weeks
	Sub-chronic NOAEL Oral	Rat	100 mg/kg	28 days

Conclusion/Summary : No known significant effects or critical hazards.

General : No known significant effects or critical hazards.

Carcinogenicity : Suspected of causing cancer if swallowed. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

The product does not contain components included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, and identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration ≥ 0.1% (w/w).

11.2.2 Other information

No additional information.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Reaction products of phosphoryl trichloride and 2-methyloxirane	EC10 191 mg/l Fresh water	Micro-organism	3 hours
	EC50 82 mg/l Fresh water	Algae - *Pseudokirchnerella subcapitata*	72 hours
	EC50 784 mg/l Fresh water	Micro-organism	3 hours
	NOEC 13 mg/l Fresh water	Algae - *Pseudokirchnerella subcapitata*	72 hours
	Acute EC50 131 mg/l Fresh water	Daphnia - *Daphnia magna*	48 hours
	Acute LC50 51 mg/l Fresh water	Fish - *Pimephales promelas*	96 hours
	Chronic NOEC 32 mg/l Fresh water	Daphnia - *Daphnia magna*	21 days

Conclusion/Summary : No known significant effects or critical hazards.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Reaction products of phosphoryl trichloride and 2-methyloxirane	OECD TG 302 A	95 % - Inherent - 64 days	-	-
	EU C.6	71 % - Not readily - 84 days	-	-
	OECD TG 301 E	14 % - Not readily - 28 days	-	-
	EU C.6	13 % - Not readily - 28 days	-	-
Alcohols, C9-11, ethoxylated	301F Ready Biodegradability - Manometric Respirometry Test	76 % - Readily - 28 days	-	-
2-[2-(dimethylamino)ethoxy] ethan-1-ol	OECD 302B	20 % - 28 days	-	-
	OECD 301F	2 % - 28 days	-	-

Conclusion/Summary : Lack of data.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Reaction products of phosphoryl trichloride and 2-methyloxirane	Fresh water >365 days, pH 4, 50°C Fresh water >365 days, pH 7, 50°C Fresh water >365 days, pH 9, 50°C	50%; 0.358 day(s)	Inherent
Alcohols, C9-11, ethoxylated	-	-	Readily
N,N,N',N'-tetramethyl-2,2'-oxybis(ethylamine)	-	-	Not readily
2-[2-(dimethylamino)ethoxy] ethan-1-ol	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Reaction products of phosphoryl trichloride and 2-methyloxirane	2,68	0.8 to 14	Low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Lack of data.

Mobility : Lack of data.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB at a concentration ≥ 0.1% (w/w).

12.6 Endocrine disrupting properties

The product does not contain components included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, and identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration ≥ 0.1% (w/w).

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional or local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
16 03 05*	organic wastes containing hazardous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Type of packaging	European waste catalogue (EWC)	
Barrel	15 01 10*	packaging containing residues of or contaminated by hazardous substances
Intermediate Bulk Container (IBC)	15 01 10*	packaging containing residues of or contaminated by hazardous substances

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not regulated.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name		
EKOPRODUR S11E-MAX POLY	≥90	3

Labeling : Not applicable.

Other EU regulations

DIRECTIVE 2008/68/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 September 2008 on the inland transport of dangerous goods (ADR, ADN, RID)
IATA /International Air Transport Association/ Dangerous Goods Regulations (ICAO/IATA DGR)
International Maritime Dangerous Goods Code (IMDG CODE)

Explosives precursors (1148/2019/EU) : Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants (1021/2019/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

15.2 Chemical Safety Assessment : No obligation to perform.

SECTION 16: Other information

Changes to the Safety Data Sheet : 1
2
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Abbreviations and acronyms : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
AOX = Adsorbable Organically Bound Halogens
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CMR = Carcinogen, Mutagen or Reproductive toxicant
CSA = Chemical Safety Assessment
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EC number = EINECS or ELINCS number
EC50 = Half maximal effective concentration
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
H statement = CLP/GHS Hazard statement
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IC50 = Half maximal inhibitory concentration
IMDG = International Maritime Dangerous Goods
LC50 = Median lethal concentration
LD50 = Median lethal dose
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
R phrase = DSD/DPD Risk phrase
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
STOT = Specific Target Organ Toxicity
SVHC = Substances of Very High Concern
UN = United Nations
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Justification
Skin Irrit. 2, H315 Eye Dam. 1, H318 Carc. 2, H351	Calculation method Calculation method Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP]

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2

Training advice : Ensure operatives are trained to minimise exposures.

Notice to reader

The information contained herein is accurate to the latest knowledge and describes the product from the point of view of help and environmental protection as well as safe handling. The information presented in this SDS refers to the technical product only and will not apply to any processed product. Final determination of the suitability of any materials for the chosen application(s) is the sole responsibility of the user"