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Conforms to EU Regulation 1907/2006/EC as amended.

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

### 1.1 Product identifier

Trade name : Kymene™ 217LXE  
Wet-Strength Resin  
™ Trademark, Solenis or its subsidiaries or affiliates,  
registered in various countries

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

Use of the Substance/Mixture : Industrial chemical

<p><b>1.3 Details of the supplier of the safety data sheet</b> Solenis Pesetastraat 62 2991 XT Barendrecht Netherlands</p> <p>Solenis UK Industries Limited P. O. Box 38, Cleckheaton Rd, Low Moor, Bradford, BD12 0JZ, United Kingdom</p> <p>EHSProductSafetyTeam@solenis.com</p>	<p><b>1.4 Emergency telephone number</b> +1-302-502-0991 , or contact your local emergency telephone number at 112</p> <p><b>Product Information</b> Contact your local Solenis representative</p>
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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 3      H412: Harmful to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P273 Avoid release to the environment.

**Disposal:**

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P501 Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
HEXANEDIOIC ACID, POLYMER WITH N1-(2-AMINOETHYL)-1,2-ETHANEDIAMINE AND 2-(CHLOROMETHYL)OXIRANE	25212-19-5	Aquatic Chronic 2; H411	>= 15 - < 25

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
If eye irritation persists, consult a specialist.
- If swallowed : IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

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

Symptoms : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:  
stomach or intestinal upset (nausea, vomiting, diarrhea)  
irritation (nose, throat, airways)

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

Treatment : No hazards which require special first aid measures.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

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

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : Sodium oxides  
sulfur oxides

#### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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### SECTION 6: Accidental release measures

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

Personal precautions : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.  
Comply with all applicable federal, state, and local regulations.

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## 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

## 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Keep in suitable, closed containers for disposal.

## 6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.  
For personal protection see section 8.  
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Wash hands before breaks and at the end of workday.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : Do not store above 30° C / 86° F. Do not store below 5 °C.

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : No data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

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## 8.2 Exposure controls

### Engineering measures

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

### Personal protective equipment

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Hand protection  
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Wear as appropriate:  
 Impervious clothing  
 Safety shoes  
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.  
 Wear resistant gloves (consult your safety equipment supplier).  
 Discard gloves that show tears, pinholes, or signs of wear.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid

Odour : No data available

Odour Threshold : No data available

pH : 2,5

Melting point/freezing point : No data available

Boiling point/boiling range : 100 °C

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

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Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 1,03 (20 °C)

Density : No data available

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : 145 mPa.s (25 °C)

Viscosity, kinematic : No data available

Oxidizing properties : No data available

## 9.2 Other information

Self-ignition : No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : Product will not undergo hazardous polymerization.

### 10.4 Conditions to avoid

Conditions to avoid : Heat  
Exposure to moisture

### 10.5 Incompatible materials

Materials to avoid : Alkali metals  
Alkaline earth metals  
aluminum

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magnesium  
 Oxidizing agents  
 sodium hypochlorite  
 Strong acids  
 Strong bases

#### 10.6 Hazardous decomposition products

Hazardous decomposition products : Sodium oxides  
 Sulphur oxides

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### **Acute toxicity**

Not classified based on available information.

##### **Product:**

Acute oral toxicity : LD50 (Rat): Expected > 2.000 mg/kg

Acute dermal toxicity : LD50 (Rat): Expected > 2.000 mg/kg

##### **Components:**

##### **HEXANEDIOIC ACID, POLYMER WITH N1-(2-AMINOETHYL)-1,2-ETHANEDIAMINE AND 2-(CHLOROMETHYL)OXIRANE:**

Acute oral toxicity : LD50 (Rat): 6.834 mg/kg

Acute inhalation toxicity : LC 50 (Rat): > 11,2 mg/l  
 Exposure time: 4 h  
 Test atmosphere: dust/mist

##### **Skin corrosion/irritation**

Not classified based on available information.

##### **Components:**

##### **HEXANEDIOIC ACID, POLYMER WITH N1-(2-AMINOETHYL)-1,2-ETHANEDIAMINE AND 2-(CHLOROMETHYL)OXIRANE:**

Result : Mildly irritating to skin

##### **Serious eye damage/eye irritation**

Not classified based on available information.

##### **Product:**

Remarks : Unlikely to cause eye irritation or injury.

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**Components:**

**HEXANEDIOIC ACID, POLYMER WITH N1-(2-AMINOETHYL)-1,2-ETHANEDIAMINE AND 2-(CHLOROMETHYL)OXIRANE:**

Result : Mildly irritating to eyes

**Respiratory or skin sensitisation**

**Skin sensitisation**

Not classified based on available information.

**Respiratory sensitisation**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Further information**

**Product:**

Remarks : No data available

**SECTION 12: Ecological information**

**12.1 Toxicity**

**Product:**

Toxicity to fish : LC50 (Fish): Expected > 10 - 100 mg/l

Toxicity to daphnia and other aquatic invertebrates : EC50 (Aquatic invertebrates): Expected > 10 - 100 mg/l

**Components:**

**HEXANEDIOIC ACID, POLYMER WITH N1-(2-AMINOETHYL)-1,2-ETHANEDIAMINE AND 2-(CHLOROMETHYL)OXIRANE:**

Toxicity to fish : LC50 (Fish): > 10 - 100 mg/l

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Exposure time: 96 h  
 Method: OECD Test Guideline 203  
 Remarks: Test conducted using environmentally representative water.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l  
 Exposure time: 48 h  
 Method: OECD Test Guideline 202  
 Remarks: Test conducted using environmentally representative water.

## 12.2 Persistence and degradability

### Product:

Biodegradability : Biodegradation: < 70 %  
 Exposure time: 28 d  
 Remarks: Not readily biodegradable.

### Components:

#### HEXANEDIOIC ACID, POLYMER WITH N1-(2-AMINOETHYL)-1,2-ETHANEDIAMINE AND 2-(CHLOROMETHYL)OXIRANE:

Biodegradability : Result: Not readily biodegradable.

## 12.3 Bioaccumulative potential

### Product:

Bioaccumulation : Remarks: The bioaccumulation potential cannot be determined.

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

## 12.6 Other adverse effects

### Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
 Harmful to aquatic life with long lasting effects.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Product : The product should not be allowed to enter drains, water courses or the soil.  
 Do not contaminate ponds, waterways or ditches with chemical or used container.  
 Send to a licensed waste management company.
- Contaminated packaging : Empty remaining contents.  
 Dispose of as unused product.  
 Empty containers should be taken to an approved waste handling site for recycling or disposal.  
 Do not re-use empty containers.

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## SECTION 14: Transport information

### 14.1 UN number

**ADR:** Not dangerous goods

**ADN:** Not dangerous goods

**RID:** Not dangerous goods

**IMDG-Code:** Not dangerous goods

**IATA-DGR:** Not dangerous goods

### 14.2 UN proper shipping name

**ADR:** Not dangerous goods

**ADN:** Not dangerous goods

**RID:** Not dangerous goods

**IMDG-Code:** Not dangerous goods

**IATA-DGR:** Not dangerous goods

### 14.3 Transport hazard class(es)

**ADR:** Not dangerous goods

**ADN:** Not dangerous goods

**RID:** Not dangerous goods

**IMDG-Code:** Not dangerous goods

**IATA-DGR:** Not dangerous goods

### 14.4 Packing group

**ADR:** Not dangerous goods

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**ADN:** Not dangerous goods  
**RID:** Not dangerous goods  
**IMDG-Code:** Not dangerous goods  
**IATA-DGR:** Not dangerous goods

#### 14.5 Environmental hazards

**ADR:** Not applicable  
**ADN:** Not applicable  
**RID:** Not applicable  
**IMDG-Code:** Not applicable  
**IATA-DGR:** Not applicable

#### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

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### SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered:

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Number on list 3

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not applicable

**The components of this product are reported in the following inventories:**

- TCSI : On the inventory, or in compliance with the inventory
- TSCA : On or in compliance with the active portion of the TSCA inventory
- AIIC : On the inventory, or in compliance with the inventory
- DSL : This product contains one or more components that are not on the Canadian DSL and have annual quantity limits.
- ENCS : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

**15.2 Chemical safety assessment**

No data available

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**SECTION 16: Other information**

**Further information**

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**Classification of the mixture:**

Aquatic Chronic 3 H412

**Classification procedure:**

Calculation method

**Full text of H-Statements**

H411 : Toxic to aquatic life with long lasting effects.

**Full text of other abbreviations**

Aquatic Chronic : Long-term (chronic) aquatic hazard

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response;

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EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

#### Sources of key data used to compile the Safety Data Sheet

Key literature references and sources of data

SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This SDS has been prepared by the Solenis Environmental Health and Safety Department.

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