

KemEcal 4011

Ref. /CA/EN

Revision Date: 12/30/2020

Previous date: 04/29/2020

Print Date:04/20/2023

1. IDENTIFICATION

Product information

Product name**KemEcal 4011**

Other means of identification: Aqueous solution of acrylic polymers

Recommended use of the chemical and restrictions on use**Use of the Substance/Mixture**

Dispersant for solid substance., Scale control

Recommended restrictions on use

For industrial use only.

Supplier's details

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Emergency telephone number

CHEMTREC (24 Hours): 1-800-424-9300

2. HAZARDS IDENTIFICATION

GHS Classification

The product is not considered hazardous by the 2015 WHMIS Hazardous Product Regulations.,

GHS-Labeling

The material is not hazardous under the criteria of the Canadian Workplace Hazardous Materials Information System (WHMIS) 2015 adoption of Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Other hazards which do not result in classification

Remarks; None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances /Mixtures: Mixture

Further information

This product contains no WHMIS regulated (hazardous) components above WHMIS Concentration (disclosure) Thresholds.

4. FIRST AID MEASURES**Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance. Get medical attention immediately if symptoms occur.

Inhalation

This product is not known to cause respiratory problems. If breathing is difficult, remove to fresh air and provide oxygen. If not breathing, give artificial respiration. Seek medical attention if cough or other symptoms develop.

Skin contact

Wash off immediately with soap and plenty of water. Remove contaminated clothing and shoes. If skin irritation persists, call a physician.

Eye contact

Rinse immediately with plenty of water for at least 15 minutes. Call a physician if symptoms occur.

Ingestion

Drink 1 or 2 glasses of water. Consult a physician. Do not induce vomiting without medical advice.

Most important symptoms and effects, both acute and delayed

Symptoms : No severe effects after a single exposure., The possible symptoms known are those derived from the labelling (see section 2). No additional symptoms are known.

Indication of immediate medical attention and special treatment needed, if necessary

Treatment : All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

No special requirements.

Foam

Dry powder

Water spray

Carbon dioxide (CO₂)

Unsuitable extinguishing media

None known.

Special hazards arising from the substance or mixture

This material will not burn until water has evaporated. Thermal decomposition can lead to release of irritating gases and vapours.

Carbon oxides (CO_x), Hydrocarbons, Fumes, Smoke

Special protective actions for fire-fighters

Wear self-contained breathing apparatus and protective suit. Use NIOSH/MSHA approved respiratory protection.

In the event of fire, wear self-contained breathing apparatus. Splashproof protective suit.

Further information

Standard procedure for chemical fires. Water in the container will lead to increased pressure and risk of explosion. Cool containers/tanks with water spray. Contaminated fire extinguishing water must be

disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Material can create slippery conditions.

Environmental precautions

Avoid runoff into storm sewers and ditches which lead to waterways. Should not be released into the environment. Stop the leakage if possible.

Methods and materials for containment and cleaning up

In case of large spillage, contain by damming up. Collect by pump. Take up mechanically and collect into suitable containers for disposal. Must be disposed of in accordance with local and national regulations. Small amounts: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

Additional advice

See Sections 7 and 8 for proper handling and protective measures and Section 13 for proper waste disposal measures.

7. HANDLING AND STORAGE

Precautions for safe handling

Uncleaned empty containers must be handled like the product itself, paying attention to the same warnings. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Store at room temperature in the original container. Keep tightly closed. Avoid freezing. Store in a place accessible by authorized persons only. Ensure adequate ventilation.

Materials to avoid:

Strong oxidizing agents

Storage stability:

Other data Recommended storage temperature

Storage temperature 5 - 38 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Appropriate engineering controls

Ensure adequate ventilation. Ensure that eyewash stations and safety showers are close to the workstation location.

Handle in accordance with good industrial hygiene and safety practice.

Individual protection measures, such as personal protective equipment

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Respiratory protection

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

Hand protection

Glove material: Impervious gloves

Skin and body protection

Ensure that eyewash stations and safety showers are close to the workstation location. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Eye protection

Tightly fitting safety goggles or safety glasses with side-shields.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	: liquid
Colour	: Clear colorless to light yellow
Odour	: mild
Odour Threshold	: not determined
pH	: ca. 7.0 - 8.0

Freezing point	:	$\leq 0\text{ }^{\circ}\text{C}$
Boiling point/boiling range	:	$\geq 100\text{ }^{\circ}\text{C}$
Flash point	:	$> 94\text{ }^{\circ}\text{C}$
		Method: PMCC
Evaporation rate	:	< 1 (n-butyl acetate = 1) similar to water
Flammability (solid, gas)	:	
Self-ignition	:	not auto-flammable
Upper explosion limit / Upper flammability limit	:	Not explosive
Lower explosion limit / Lower flammability limit	:	Not explosive
Vapour pressure	:	Like water
Relative vapour density	:	Like water
Relative density	:	ca. 1.32 (25 °C)
Density	:	ca. 1.32 g/cm ³ (25 °C)
Solubility(ies)		
Water solubility	:	completely soluble
Partition coefficient: n-octanol/water	:	not determined
Auto-ignition temperature	:	No data available
Decomposition temperature	:	$> 200\text{ }^{\circ}\text{C}$
Viscosity		
Viscosity, dynamic	:	ca. 100 - 300 cP (20 °C)
Viscosity, kinematic	:	No data available
Surface tension	:	not determined

10. STABILITY AND REACTIVITY**Reactivity**

Stable under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Hazardous polymerisation does not occur.

Conditions to avoid

Avoid temperatures above 100 °C.
Evaporation of water increases the viscosity.

Avoid temperatures below 5°C.
Handling operations become difficult due to increased viscosity.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

After evaporation of water, combustion will generate:
Carbon oxides (COx)
Hydrocarbons
Fumes
Smoke

Thermal decomposition: > 200 °C

11. TOXICOLOGICAL INFORMATION**Information on toxicological effects**

Acute oral toxicity

Conclusion: No data is available on the product itself., Information given is based on data obtained from similar substances.

LD50 Oral/Rat/>5,000 mg/kg

Acute dermal toxicity

LD50/Rabbit/>5,000 mg/kg

Respiratory or skin sensitisation

Skin sensitization

Conclusion: No data available

Mucous membranes

Conclusion: No data available

Skin sensitisation

Remarks: None known.

Germ cell mutagenicity

Genotoxicity in vitro

AMES test/with and without
Result: negative
Remarks: Similar substance:, Literary reference

Conclusion: In vitro tests did not show mutagenic effects

Carcinogenicity

Carcinogenicity

No evidence of carcinogenic effects by polymer.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity

Similar product:

LC50/96 h/Leuciscus idus (ide)/DIN 38412: > 500 mg/l

EC50/48 h/Daphnia magna (Water flea)/OECD Test Guideline 202: > 200 mg/l

NOEC/96 h/Scenedesmus subspicatus (algae)/OECD Test Guideline 201: 180 mg/l

Toxicity to other organisms

There is no data available for this product.

Persistence and degradability

Biological degradability:
/OECD Test Guideline 302A:

Not readily biodegradable. Transmission of polyelectrolytes through biological membranes is nonexistent due to large molecule size and its hydrophilic nature.

Bioaccumulative potential

Partition coefficient: n-octanol/water: not determined

Mobility in soil

Water solubility: completely soluble

Adsorption and/or desorption: Strong adsorption to inorganic substances (e.g. clay ground, fine sand) and to leached organic carbon (e.g. humic acid of nature) restricts migration.

Flocculation with activated sludge.

Other adverse effects

None known.

Additional ecological information: By calculation according to the conventional method This material is not classified as dangerous for the environment.

13. DISPOSAL CONSIDERATIONS

Product	Must be disposed of in accordance with local and national regulations.
Contaminated packaging	Must be disposed of in accordance with local and national regulations. Rinse package before disposal.

14. TRANSPORT INFORMATION

Land transport

Not classified as dangerous in the meaning of transport regulations.

HARMFUL - stow away from foodstuffs

Sea transport

Not classified as dangerous in the meaning of transport regulations.
HARMFUL - stow away from foodstuffs

Air transport

Not classified as dangerous in the meaning of transport regulations.
HARMFUL - stow away from foodstuffs

Special precautions for user

None known.

15. REGULATORY INFORMATION

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

Other regulations : No restrictions identified other than those already covered in regulations.

Notification status

USA	: All components of this product are included in the United States TSCA Chemical Inventory or are not required to be listed on the United States TSCA Chemical Inventory.
Australia	: All components of this product are included in the Australian Inventory of Industrial Chemicals (AIIC) or are not required to be listed on the Australian Inventory of Industrial Chemicals (AIIC).
Canada	: All components of this product are included in the Canada Domestic Substance List (DSL) or are not required to be listed on the Canada Domestic Substance List (DSL).
China	: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.
European Union	: All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.
Japan	: All components of this product are included on the Japanese

	(ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.
South Korea	: All components of this product are included in the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.
New Zealand	: All components of this product are included on the New Zealand Inventory of Chemical Substances.
Philippines	: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.
Taiwan	: All components of this product are included on the Taiwan Toxic Chemical Substances Control Act Inventory.
	:

16. OTHER INFORMATION

HMIS Rating

Health: 1

Flammability: 1

Reactivity: 0

Training advice

Read the safety data sheet before using the product.

Further information

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 Safety Data Sheet is prepared according to the Canadian WHMIS Hazard Communication Standard (WHMIS 2015), an adoption of the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Revision 5.

Sources of key data used to compile the Safety Data Sheet

Regulations, databases, literature, own tests.



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