SAFETY DATA SHEET

KATHON™ LX 1.5% Biocide

Version	Revision Date:	SDS Number:	Date of last issue: 02/27/2024
2.0	07/11/2024	203000022050	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : KATHON™ LX 1.5% Biocide

Product code : 000000000062632562

EPA registration number : 707-134

Manufacturer or supplier's details

Company : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, Pennsylvania 15275-1112

Responsible Department : (800) LANXESS
(412) 809-1000
lanxesshes@lanxess.com

Emergency telephone : CHEMTREC (800) 424-9300 or
(703) 527-3887 (Outside U.S.A) and mention CCN12916.
Lanxess Emergency Phone (800) 410-3063.

Recommended use of the chemical and restrictions on use

Recommended use : Biocide for industrial application

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion : Category 1

Serious eye damage : Category 1

Skin sensitization : Category 1

GHS label elements

Hazard pictograms :

Signal Word : Danger

Hazard Statements : Causes severe skin burns and eye damage.
May cause an allergic skin reaction.

Precautionary Statements :

Prevention:

Avoid breathing mist or vapors.
Wash skin thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
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/ doctor.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.

Storage:

Store locked up.

Disposal:

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

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
magnesium nitrate	10377-60-3	>= 1 - < 5
Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1)	-	>= 1 - < 5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

General advice	:	Consult a physician. Move out of dangerous area. Do not leave the victim unattended. Show this safety data sheet to the doctor in attendance.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact	:	Get medical attention immediately. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Continue to rinse for 30 minutes. Chemical burns must be treated promptly by a physician. Wash contaminated clothing before reuse.
In case of eye contact	:	Get medical attention immediately. In case of contact, flush eyes with plenty of water for at least 30 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Remove contact lenses, if present and easy to do. Continue rinsing. Chemical burns must be treated promptly by a physician.
If swallowed	:	Rinse mouth with water. Do not induce vomiting unless directed to do by medical personnel. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Symptoms	:	Eye: Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage. Skin: Causes irritation with symptoms of reddening, itching, and swelling. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Effects	:	May cause an allergic skin reaction. Causes serious eye damage. Causes severe burns.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection and use the recommended protective clothing
Notes to physician	:	Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media	:	High volume water jet
Hazardous combustion products	:	Nitrogen oxides (NOx) Metal oxides Carbon dioxide (CO2) Carbon monoxide Sulfur oxides Halogenated compounds
Further information	:	Cool containers/tanks with water spray. Minimize exposure. Do not breathe fumes. Contain run-off.
Special protective equipment for fire-fighters	:	Self-contained breathing apparatus Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Wear a NIOSH approved (or equivalent) respirator (with organic vapor/acid gas cartridge and a dust/mist filter) during spill clean-ups and deactivation of this material. MATERIAL IS CORROSIVE. Protective clothing, including chemical splash goggles, nitrile or butyl rubber full length gloves, rubber apron, or clothing made of nitrile or butyl rubber, and rubber overshoes must be worn during spill clean-ups and deactivation of this material. If material comes in contact with the skin during clean-up operations, IMMEDIATELY remove all contaminated clothing and wash exposed skin areas with soap and water. See SECTION 4, First Aid Measures, for further information. Isolate the area immediately for at least 100 meters in all directions.
Environmental precautions	:	Do not allow material to contaminate ground water system. Prevent product from entering drains.
Methods and materials for containment and cleaning up	:	WARNING: KEEP SPILLS AND CLEAN-UP RESIDUALS OUTOF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. Adsorb the spill with spill pillows or inert solids such as clay or vermiculite, and transfer contaminated materials to suitable containers for disposal. Deactivate spill area with freshly prepared solution of 5% sodium bicarbonate and 5% sodium hypochlorite in water. Apply solution to the spill area at a ratio of 10 volumes deactivation solution per estimated volume of residual spill to deac tivate any residual active in-

gredient. Let stand for 30 minutes. Flush the spill area with copious amounts of water to chemical sewer (if in accordance with local procedures, permits and regulations). DO NOT add deactivation solution to the waste pail to deactivate the adsorbed material. See Section 13, "Disposal Considerations", for information regarding the disposal of contained materials.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	This material is corrosive. See SECTION 8, Exposure Controls/Personal Protection, prior to handling. Do not handle material near food, feed or drinking water.
Conditions for safe storage	:	Keep in a well-ventilated place. The product as supplied may evolve gas (largely carbon dioxide) slowly. To prevent the buildup of pressure the product is packaged in specially vented containers, where necessary. Keep this product in the original container when not in use. Container must be stored and transported in an upright position to prevent spilling the contents through the vent, where fitted. Do not store this material in containers made of the following: steel Do not store near food, foodstuffs, drugs or potable water supplies.
Further information on storage conditions	:	CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied. Expiration date based only on retention of >95% actives during storage at 20ºC-25ºC (68ºF-77ºF).
Recommended storage temperature	:	34 - 131 °F / 1 - 55 °C
Further information on storage stability	:	Stable under recommended storage conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures	:	Use only in area provided with appropriate exhaust ventilation.

Use local exhaust ventilation with a minimum capture velocity of 150 ft/min. (0.75 m/sec.) at the point of dust or mist evolution. Refer to the current edition of "Industrial Ventilation: A Manual of Recommended Practice" published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Personal protective equipment

Respiratory protection : Typical use of this material does not result in workplace exposures that exceed the exposure limits listed in the Exposure Limit Information Section. For those special workplace conditions where the listed exposure limits are exceeded, a respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed. For concentrations up to 10 times the exposure limit, wear a properly fitted NIOSH approved (or equivalent) half-mask or full facepiece air purifying respirator equipped with organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters. For those unlikely situations where exposure may greatly exceed the listed exposure limits (i.e. greater than 10-fold), or in any emergency situation, wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode or a full facepiece airline respirator in the pressure demand mode with emergency escape provision.
See SECTION 6, Accidental Release Measures, for respirator and protective clothing requirements for spill clean-up and decontamination of this material.

Hand protection

Remarks : Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: butyl-rubber Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Neoprene Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride - PVC NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Eye protection : Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

Eye protection worn must be compatible with respiratory protection system employed.

Skin and body protection : Wear as appropriate:
Chemical resistant apron
Complete suit protecting against chemicals

Protective measures : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Physical state	:	liquid
Color	:	Light blue to light green
Odor	:	Mild, inoffensive odor
Odor Threshold	:	No data available
pH	:	2 - 4 Concentration: 100 %
Melting point/freezing point	:	26.60 °F / -3.00 °C
Boiling point/boiling range	:	212.00 °F / 100.00 °C (1,013 hPa)
Flash point	:	Not combustible.
Evaporation rate	:	< 1.00 (Butyl Acetate=1.0)
Flammability (solid, gas)	:	Not applicable
Self-ignition	:	Not applicable

Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapor pressure	:	No data available
Relative vapor density	:	0.6200 (Air = 1.0)
Relative density	:	1.02
Density	:	1.02 g/cm3 (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	completely soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	log Pow: 0.401 Method: Method Not Specified.
Ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	3.000 mPa.s (77 °F / 25 °C)
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Surface tension	:	No data available
Molecular weight	:	No data available
Particle size	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Stable under normal conditions.

Possibility of hazardous reactions	:	Polymerization will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	:	No data available
Incompatible materials	:	Oxidizing agents Amines Reducing agents mercaptan
Hazardous decomposition products	:	Nitrogen oxides (NOx) Sulfur oxides hydrogen chloride

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	:	LD50 (Rat, female): 3,310 mg/kg LD50 (Rat, male): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Estimated value Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	LD50 (Rabbit): > 5,000 mg/kg

Components:

magnesium nitrate:

Acute oral toxicity	:	LD50 (Rat, female): > 2,000 mg/kg Method: OECD Test Guideline 423 GLP: Yes Assessment: The substance or mixture has no acute oral toxicity Remarks: Dosage caused no mortality
Acute dermal toxicity	:	LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 402

GLP: Yes
Remarks: Test results on an analogous product

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Acute oral toxicity	:	LD50 (Rat): 64 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 0.33 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: Corrosive to the respiratory tract.
Acute dermal toxicity	:	LD50 (Rabbit): 87.12 mg/kg

Skin corrosion/irritation

Causes severe burns.

Components:

magnesium nitrate:

Species	:	Rabbit
Exposure time	:	4 h
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
GLP	:	No
Remarks	:	Test results on an analogous product

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Result	:	Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days.
Remarks	:	Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Species	:	Rabbit
Result	:	Corrosive

Components:

magnesium nitrate:

Species	:	Rabbit

Result	:	No eye irritation
Method	:	OECD Test Guideline 405
GLP	:	Yes

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Remarks	:	Risk of serious damage to eyes.

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Product:

Routes of exposure	:	Skin contact
Species	:	Guinea pig
Result	:	Causes sensitization.
Routes of exposure	:	Inhalation
Remarks	:	No data available

Components:

magnesium nitrate:

Test Type	:	Local lymph node assay (LLNA)
Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Did not cause sensitization on laboratory animals.
GLP	:	Yes

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	May cause sensitization by skin contact.
GLP	:	Yes
Test Type	:	Local lymph node assay (LLNA)
Routes of exposure	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429

Result : The product is a skin sensitizer, sub-category 1A.
GLP : Yes

Germ cell mutagenicity

Not classified based on available information.

Components:

magnesium nitrate:

Genotoxicity in vitro : Test Type: gene mutation test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: Yes

Test Type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: Yes
Remarks: Test results on an analogous product

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: Yes
Remarks: Test results on an analogous product

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

Carcinogenicity

Not classified based on available information.

Components:

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

magnesium nitrate:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Application Route: Oral
Dose: 250 - 750 - 1500 mg/kg
Duration of Single Treatment: 28 d
General Toxicity Parent: NOAEL: >= 1,500 mg/kg body weight
Method: OECD Test Guideline 422
GLP: Yes
Remarks: Test results on an analogous product

Effects on fetal development : Species: Rat, male and female
Application Route: Oral
Dose: 250 - 750 - 1500 mg/kg
Duration of Single Treatment: 53 d
General Toxicity Maternal: NOAEL: >= 1,500 mg/kg body weight
Developmental Toxicity: NOAEL: >= 1,500 mg/kg body weight
Method: OECD Test Guideline 422
GLP: Yes
Remarks: Test results on an analogous product

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Reproductive toxicity - Assessment : No toxicity to reproduction

STOT-single exposure

Not classified based on available information.

Components:

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Assessment : Material is corrosive. Upper respiratory tract irritation or corro-

sivity may be expected.

STOT-repeated exposure

Not classified based on available information.

Components:

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Assessment	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

magnesium nitrate:

Species	:	Rat, male and female
NOAEL	:	>= 1,500 mg/kg
Application Route	:	Oral
Exposure time	:	28 d
Number of exposures	:	daily
Dose	:	250 - 750 - 1500 mg/kg
Method	:	OECD Test Guideline 422
GLP	:	Yes
Remarks	:	Subacute toxicity Test results on an analogous product

Aspiration toxicity

Not classified based on available information.

Components:

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

No aspiration toxicity classification

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

magnesium nitrate:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l End point: mortality Exposure time: 96 h

Test Type: static test
Analytical monitoring: Yes
Method: OECD Test Guideline 203
GLP: Yes
Remarks: Test results on an analogous product

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 490 mg/l
Exposure time: 48 h
Analytical monitoring: No
GLP: No
Remarks: Test results on an analogous product

Toxicity to algae/aquatic plants : EC50 (Diatom): > 1,700 mg/l
End point: Growth rate
Exposure time: 10 Days
Test Type: static test
Analytical monitoring: Yes
GLP: No
Remarks: Test results on an analogous product

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Analytical monitoring: No
Method: OECD Test Guideline 209
GLP: Yes
Remarks: Test results on an analogous product

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.19 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 0.16 mg/l
Exposure time: 48 h
Test Type: flow-through test
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.027 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Skeletonema costatum (marine diatom)): 0.0014 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test

EC50 (Skeletonema costatum (marine diatom)): 0.0063 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.05 mg/l
Exposure time: 14 d
Test Type: flow-through test

NOEC (Pimephales promelas (fathead minnow)): 0.02 mg/l
Exposure time: 36 d
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.1 mg/l
Exposure time: 21 d
Test Type: flow-through test

Persistence and degradability

Components:

magnesium nitrate:

Biodegradability : Result: The methods for determining the biological degradability are not applicable to inorganic substances.

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Biodegradability : Result: Biodegradation (aquatic metabolism):5-Chloro-2-methyl-4-isothiazolin-3-one (CMIT): t ½ anaerobic = 0.2 day. t ½ aerobic = 0.38 – 1.3 day2-Methyl-4-isothiazolin-3-one(MIT): t ½ aerobic = 0.38 – 1.4 day
Remarks: Considered rapidly degradable in the environment.

Biodegradation: < 50 %
Exposure time: 10 d

Result: Biodegradable
Biodegradation: 62 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Biodegradation: 98 %
Exposure time: 48 d
Method: Simulation study
Test substance: CAS 2682-20-4 (2-methylisothiazol-3(2H)-one)
Remarks: Considered rapidly degradable in the environment.

Result: Not readily biodegradable.
Biodegradation: 50 %
Exposure time: 29 d
Method: OECD Test Guideline 301B
Test substance: CAS 2682-20-4 (2-methylisothiazol-3(2H)-one)
GLP: Yes

Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
Test substance: CAS 2682-20-4 (2-methylisothiazol-3(2H)-one)
GLP: Yes

Test substance: CAS 26172-55-4 (5-chloro-2-methyl-2H-isothiazol-3-one)
Remarks: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

aerobic
Concentration: 6 mg/l
Result: Readily biodegradable.
Biodegradation: 98 %
Exposure time: 2 d
Method: OECD Test Guideline 302B
Test substance: CAS 26172-55-4 (5-chloro-2-methyl-2H-isothiazol-3-one)
Remarks: 10-day Window: Not applicable

Photodegradation : Degradation (direct photolysis):
Degradation half life: 0.2 d
Degradation (indirect photolysis):
Degradation half life: 0.38 - 1.3 d

Bioaccumulative potential

Components:

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

Test substance: CAS 2682-20-4 (2-methylisothiazol-3(2H)-one)
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n- : Remarks: Bioconcentration potential is low (BCF < 100 or Log

octanol/water

Pow < 3).

log Pow: -0.486
Method: measured
Remarks: 2-Methyl-4-isothiazolin-3-one(MIT):

log Pow: 0.401
Method: measured
Remarks: 5-Chloro-2-methyl-4-isothiazolin-3-one

Mobility in soil

Components:

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Distribution among environmental compartments : Remarks: Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Koc: 28
Method: estimated
Remarks: Potential for mobility in soil is very high (Koc between 0 and 50).

Other adverse effects

Components:

Mixture of 5-chloro-2-methyl-2H-isothiazol-3-one (CAS 26172-55-4) and 2-methyl-2H-isothiazol-3-one (CAS 2682-20-4) (3:1):

Results of PBT and vPvB assessment : Substance is not persistent, bioaccumulative, and toxic (PBT). Substance is not very persistent and very bioaccumulative (vPvB).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource Conservation and Recovery Authorization Act : When discarded in its purchased form, this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002). (40 CFR 261.20-24)

Waste from residues : The generation of waste should be avoided or minimized wherever possible.
This material and its container must be disposed of in a safe way.

Empty containers retain product residue; observe all precautions for product.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 3265
Proper shipping name	:	Corrosive liquid, acidic, organic, n.o.s. (MIXTURE OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1))
Class	:	8
Packing group	:	III
Labels	:	8
	:	
Packing instruction (cargo aircraft)	:	856 : 60.00 L
Packing instruction (passenger aircraft)	:	852 : 5.00 L
Environmentally hazardous	:	yes
		

IMDG-Code

UN number	:	UN 3265
UN proper shipping name	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (MIXTURE OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1))
Class	:	8
Packing group	:	III
Labels	:	8
	:	
EmS Code	:	F-A, S-B

Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 3265
Proper shipping name	:	Corrosive liquid, acidic, organic, n.o.s. (MIXTURE OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1))
Class	:	8
Packing group	:	III
Labels	:	8
	:	

ERG Code	:	153
Marine pollutant	:	no

Hazard and Handling Notes.
Slightly corrosive.
Environmentally hazardous substance.
Keep separated from foodstuffs

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.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

magnesium nitrate	10377-60-3	>= 1 - < 5

Pennsylvania Right To Know

water	7732-18-5	> 1
magnesium nitrate	10377-60-3	>= 1 - < 5
copper dinitrate	3251-23-8	< 1
acetic acid	64-19-7	< 0.1

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

TSCA inventory

TSCA : This product is regulated under the United States Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

FIFRA information

EPA registration number : 707-134

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

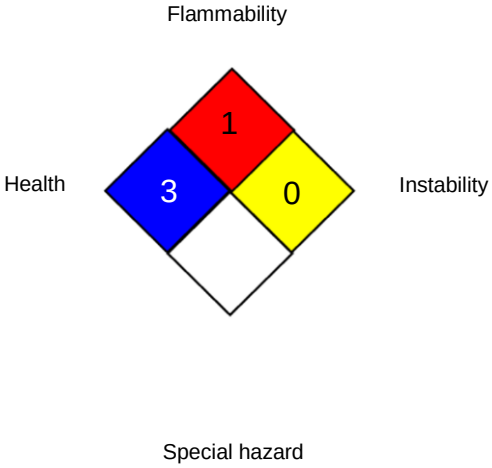
Signal Word : DANGER

Hazard Statements : Corrosive Causes irreversible eye damage and skin burns. May cause allergic skin reaction. May be fatal if inhaled. Harmful if swallowed or absorbed through skin.

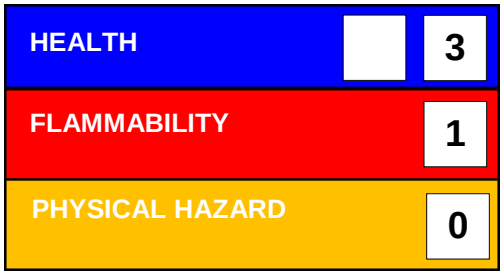
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments

and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 07/11/2024

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. 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 to be a guidance for processing and does not contain any 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. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.