

BIO/TEC 079

Please note ALL Southwest Engineers' BIO/TEC products are EPA-regulated products. The primary registrant of these products strictly prohibits any changes and/or additions to the documents (i.e. SDS's, labels, etc.) provided for these products without prior authorization.

SAFETY DATA SHEET

Revision Date: November 16, 2017

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Product Name: BIO/TEC 079
Chemical Family: Proprietary mixture
Supplier: SOUTHWEST ENGINEERS
39478 Highway 190 East
Slidell, LA 70461
Telephone: (985) 643-1117
Fax: (985) 641-4509
Emergency Number: (800) 424-9300 - Chemtrec

Recommended use of the chemical and restrictions on use

Identified uses: Biocidal product

2. HAZARDOUS INGREDIENTS

GHS Classification

Skin corrosion : Category 1B

Serious eye damage : Category 1

Skin sensitisation : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

2. HAZARDOUS INGREDIENTS – con't.

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
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/doctor.
P312 Call a POISON CENTER/doctor if you feel unwell.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.

Storage:
P405 Store locked up.

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

Other hazards
None known.

3. HAZARDS IDENTIFICATION

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration
5-Chloro-2-methyl-2H-isothiazol-3-one	26172-55-4	1.15
2-Methyl-2H-isothiazol-3-one	2682-20-4	0.35
Magnesium nitrate	10377-60-3	2.00
Magnesium chloride	7786-30-3	0.50
Copper dinitrate	3251-23-8	0.20
Water	7732-18-5	96.00

4. FIRST AID MEASURES

- If inhaled : Move to fresh air.
If breathing is irregular or stopped, administer artificial respiration. Give oxygen.
First aider needs to protect himself. Call a physician immediately.
- In case of skin contact : Take off all contaminated clothing immediately.
After contact with skin, wash immediately with plenty of soap and water.
Call a physician immediately.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Call a physician immediately.
- If swallowed : Call a physician immediately.
Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.

5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry powder
Water spray
Foam
- Specific hazards during firefighting : Heating or fire can release toxic gas.
- Further information : Use water spray to cool unopened containers.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use respirator when performing operations involving potential exposure to vapour of the product.
- Environmental precautions
- General advice : Do not flush into surface water or sanitary sewer system.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Advice on safe handling	:	Avoid contact with skin and eyes. Provide sufficient air exchange and/or exhaust in work rooms.
Conditions for safe storage	:	Keep container tightly closed. To maintain product quality, do not store in heat or direct sunlight.
Recommended storage temperature	:	-0.00 - 54 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Appropriate engineering controls

Personal protective equipment

Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.
Hand protection	:	
Material	:	Nitrile rubber
Rate of permeability	:	> 480 min
Eye protection	:	Tightly fitting safety goggles Face-shield
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Rubber or plastic apron Rubber or plastic boots
Hygiene measures	:	Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

9. PHYSICAL DATA

Appearance	:	liquid
Colour	:	light green
Odour	:	mild
Odour Threshold	:	no data available
pH	:	1 - 3

9. PHYSICAL DATA – con't.

Melting point/range	: -2 °C
Boiling point/boiling range	: no data available
Flash point	: no data available
Evaporation rate	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: 0.1 hPasee user defined free text
Relative vapour density	: no data available
Relative density	: no data available
Density	: 1.02 g/cm ³ (25 °C)
Solubility(ies)	
Water solubility	: soluble
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Decomposition temperature	: no data available
Viscosity	
Viscosity, dynamic	: 5 mPa.s (23 °C)
Viscosity, kinematic	: no data available

10. STABILITY & REACTIVITY DATA

Possibility of hazardous reactions	: Stable under normal conditions.
Conditions to avoid	: Temperatures above 130°F (stable for 6 months at 130°F). Decomposes on exposure to light.
Incompatible materials	: Amines Oxidizing agents Reducing agents
Hazardous decomposition products :	Hydrogen chloride gas Sulphur oxides Nitrogen oxides (NO _x) Carbon oxides

11. TOXICOLOGICAL INFORMATION

Information on likely routes of
Exposure

: Skin
Eyes
Ingestion
Inhalation

Acute toxicity

Acute oral toxicity (LD50)

: 2,350 mg/kg Species: Rat
Method: OECD Test Guideline 401
GLP: yes

Acute dermal toxicity (LD50)

: 4.5 - 79 mg/kg Species: Rabbit

Acute dermal toxicity (LD50)

: > 2,000 mg/kg
Species: Rabbit
Exposure time: 24 h
Method: OECD Test Guideline 402
GLP: yes

Skin corrosion/irritation

Skin irritation

: Corrosive
Species: Rabbit Exposure time: 4 h
Method: OECD
Test Guideline 404 GLP: yes

Serious eye damage/eye irritation

Eye irritation

: Corrosive Species: Rabbit
Method: OECD
Test Guideline 405
GLP: yes

Respiratory or skin sensitisation

Sensitisation

: Species: Humans
Result: Sensitising

Species: Humans
Result: not sensitizing

Test Type: Photoallergy
Species: Humans
Result: not sensitizing

Test Type: Buehler Test
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Sensitising
GLP: yes

Further information

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

- Toxicity to fish : Remarks: no data available
- Toxicity to terrestrial organisms : LD50(Colinus virginianus (Bobwhite quail)): 65.000 mg/kg
End point: Acute toxicity
- LC50(Colinus virginianus (Bobwhite quail)): 3,536.000 ppm
Exposure time: 8 d
End point: Subacute toxicity
- LC50(Anas platyrhynchos (Mallard duck)): 945.000 ppm
Exposure time: 8 d
End point: Subacute toxicity
- EC50(Eastern oyster):
28.000 ppb Exposure time: 48 h
End point: Acute toxicity
- LC50(Anas platyrhynchos domestica (Peking duck)): 530.000 ppm
Exposure time: 8 d
End point: Subacute toxicity

Persistence and degradability

- Biodegradability : Remarks: no data available

Bioaccumulative potential

- Bioaccumulation : Remarks: no data available

Mobility in soil

- Distribution among environmental Compartments : Remarks: no data available

Other adverse effects

- Results of PBT and vPvB assessment : This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

- Additional ecological information and the : Information given is based on data on the components and the ecotoxicology of similar products.

The following ecotoxicological data refer to:

5-Chloro-2-methyl-2H-isothiazol-3-one and 2-Methyl-2H-isothiazol-3-one (mixture 3:1)
(CAS-No.: 55965-84-9)

12. ECOLOGICAL INFORMATION – con't.

Ecotoxicity

Toxicity to fish (LC50)	:	0.19 mg/l Species: Oncorhynchus mykiss (rainbow trout) Acute toxicity Exposure time: 96 h
Toxicity to fish (LC50)	:	0.28 mg/l Species: Lepomis macrochirus (Bluegill sunfish) Acute toxicity Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates (EC50)	:	0.16 mg/l Species: Daphnia magna (Water flea) Immobilization Exposure time: 48 h
Toxicity to daphnia and other aquatic invertebrates (NOEL)	:	0.035 mg/l Species: Daphnia magna (Water flea) Reproduction Test Exposure time: 21 d Method: OECD Test Guideline 202
Toxicity to algae (ErC50)	:	0.027 mg/l Species: Selenastrum capricornutum (green algae) Growth inhibition Exposure time: 72 h Test Type: Growth inhibition
M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1

Persistence and degradability

Biodegradability : Result: Not readily biodegradable.

Bioaccumulative potential

no data available

Mobility in soil

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Disposal methods

- Waste from residues : Dispose of in accordance with local regulations.
The organic ingredients can be incinerated in a suitable installation when in accordance with local regulations.
Material to be disposed of is classified as a D002 hazardous waste with a reportable quantity (RQ) of 100 lbs. of total isothiazolinone. For accidental release measures for each mixture refer to attached material safety data sheets.
- Contaminated packaging : Dispose of as unused product.

14. TRANSPORT INFORMATION

IATA

UN number	UN 3265
Proper shipping name	Corrosive liquids, acidic, organic, n.o.s. (5-Chloro-2-methyl-4-isothiazolin-3-one)
Transport Hazard Class	8
Packing group	III
Labels	8
Environmental Hazards	No

IMDG

UN number	UN 3265
Proper shipping name	Corrosive liquids, acidic, organic, n.o.s. (5-Chloro-2-methyl-4-isothiazolin-3-one)
Transport Hazard Class	8
Packing group	III
Labels	8
EmS Number 1	F-A
EmS Number 2	S-B
Environmental Hazards	Marine pollutant: yes

ADR

UN number	UN 3265
Proper shipping name	Corrosive liquids, acidic, organic, n.o.s. (5-Chloro-2-methyl-4-isothiazolin-3-one)
Transport Hazard Class	8
Packing group	III
Classification Code	C3
Hazard Identification Number	80
Labels	8
Environmental Hazards	Yes

14. TRANSPORT INFORMATION – con't.

RID

UN number	UN 3265
Proper shipping name	Corrosive liquids, acidic, organic, n.o.s. (5-Chloro-2-methyl-4-isothiazolin-3-one)
Transport Hazard Class	8
Packing group	III
Classification Code	C3
Hazard Identification Number	80
Labels	8
Environmental Hazards	Yes

DOT

UN number	UN 3265
Proper shipping name	Corrosive liquids, acidic, organic, n.o.s. (5-Chloro-2-methyl-4-isothiazolin-3-one)
Transport Hazard Class	8
Packing group	III
Labels	8
Emergency Response Guidebook Number	153
Environmental Hazards	No

TDG

UN number	3265
Proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (5-Chloro-2-methyl-4-isothiazolin-3-one)
Transport hazard class	8
Packing group	III
Labels	8
Environmental hazards	no
Special precautions for user	none
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals.

Signal word : DANGER!

Hazard statements : Causes substantial but temporary eye injury.
May be fatal if absorbed through skin.
Corrosive. Causes skin burns.
Corrosive. Causes irreversible eye damage.
This pesticide is toxic to fish.

EPA No. : 6836-259-55137

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards : Acute Health Hazard

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

	Magnesium nitrate	10377-60-3	2%
Massachusetts Right To Know	Magnesium nitrate	10377-60-3	
Pennsylvania Right To Know	Magnesium nitrate	10377-60-3	
New Jersey Right To Know	Magnesium nitrate	10377-60-3	
California Prop 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.		

16. OTHER INFORMATION

Revision Date: September 14, 2016

Hazard Rating System

HMIS		
Health	Flammability	Physical Hazard
3	1	0

The information herein is presented in good faith and believed to be correct as of the date hereof. However, Southwest Engineers makes no representation as to the completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purposes prior to use.

No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or of any other nature with respect to the product or to the information herein is made. Southwest Engineers shall in no event be responsible for any damages of whatsoever nature directly or indirectly resulting from the publication or use or reliance upon information contained herein.

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