



Tacit™

Safety Data Sheet

SECTION 1: Identification

1.1. Identification

Product name : Tacit™

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

Use of the substance/mixture : Intended as professional agricultural and horticultural fertilizer, soil amendment or in some cases a microbial adjuvant.

1.3. Details of the supplier of the safety data sheet

CXI (Chem-X International, LLC)
1100 East Sandy Lake Road
Coppell, TX 75019

1.4. Emergency telephone number

Emergency number : 972-471-7775

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Not classified

2.2. Label elements

GHS-US labeling

No labeling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Aqueous mixture of naturally occurring microorganisms <i>pseudomonas putida</i> and <i>bacillus subtilis</i>	None	94	Not classified
Humic acid	(CAS No) 1415-93-6	6	Not classified

Full text of classification categories and H statements : see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic, seek a health care professional immediately.
- First-aid measures after skin contact : Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated clothing and wash thoroughly before reuse. If irritation persists, consult a health care professional.
- First-aid measures after eye contact : Flush immediately with copious amounts of tap water or normal saline (minimum of 15 minutes). Take exposed individual to a health care professional, preferably an ophthalmologist, for further evaluation.
- First-aid measures after ingestion : DO NOT INDUCE VOMITING. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semi-comatose, comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility. NOTE TO PHYSICIAN: No specific antidote is known. Probable mucosal damage may contraindicate the use of gastric lavage. Treat Symptoms.

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

Symptoms/injuries after inhalation	: None anticipated under normal product handling conditions.
Symptoms/injuries after skin contact	: May cause moderate irritation.
Symptoms/injuries after eye contact	: May cause irritation.
Symptoms/injuries after ingestion	: May be harmful if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: None.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: None known.
Explosion hazard	: None known.

5.3. Advice for firefighters

Protection during firefighting	: Firefighters should wear full protective gear.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Stop the flow of material, if this is without risk.
Methods for cleaning up	: Initially minimize area affected by the spill or leak. Block any potential routes to water system (e.g., sewers, streams, lakes, etc.). Based on the product's toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (e.g. water systems, ground, air equipment, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. CXI can be contacted for technical assistance. Determine if federal, state and/or local release notification is required. Recover as much of the pure product as possible into appropriate containers. Later, determine if this recovered product can be used for its intended purpose. Address clean-up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Clay, soil or commercially available absorbents may be used to recover any material that cannot readily be recovered as pure product. Flushing residual material to an industrial sewer, if present at the site of a spill or leak incident may be acceptable if authorized approval is obtained. If product and/or spill/leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials. Contact the person(s) responsible for the operation of your facility's industrial sewer system prior to intentionally flushing or pumping spills or leaks of this product to the industrial sewer.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Wash thoroughly after handling.
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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep/store only in original container. Store in a well-ventilated place. Keep container tightly closed. Do not store together with: Combustible substance, reducing agents. Best stored inside out of direct sunlight between 50°-90°F.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Humic acid (1415-93-6)

Not applicable

8.2. Exposure controls

Appropriate engineering controls	: General (mechanical) room ventilation is expected to be satisfactory for normal handling.
Hand protection	: Standard household rubber gloves are sufficient.
Eye protection	: Wear safety goggles.
Skin and body protection	: Wear long sleeved shirt and long pants as a precautionary measure.
Respiratory protection	: If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Dark brown
Odor	: None
Odor threshold	: No data available
pH	: 8
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 0.984 g/ml
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: > 600 °C
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

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10.5. Incompatible materials

None.

10.6. Hazardous decomposition products

Not determined.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

- Acute toxicity : Oral: The test article was well-tolerated by Sprague Dawley female rats when administered orally at 5000 mg/kg (body weight). No toxic signs were observed in any of the tested animals and all animals gained weight at the end of the study. All major organs appeared healthy at necropsy. Therefore, the LD50 is greater than 5000 mg/kg.
- Dermal: The test article (2000 mg/kg) was well-tolerated when exposed dermally to male and female Sprague Dawley rats. All male animals appeared healthy during the course of the study and all animals gained weight at the end of the test. No abnormalities were observed at gross necropsy in male rats. One female rat (#7) lost weight (11.1 grams) at the end of the study. Enlarged uterus was observed in the same animal at the end of the study. All other animals were healthy and no abnormalities were noted.
- Skin corrosion/irritation : A Draize dermal irritation/corrosion study was performed and determined that the test article was well tolerated when applied topically to skin of New Zealand white rabbits and no severe reactions were observed. All animals appeared healthy during the course of the study. No skin reactions were observed at 1 hour, 24, 48 and 72 hours after removal of the test article. Based on the Draize rating system, the article was rated as non-irritating to the rabbit skin.
- Serious eye damage/irritation : A Draize ocular irritation study was performed and determined that the test article was considered to be well-tolerated when administered to rabbit eyes. The test article did not cause a positive response. Based on the Kay and Calandra method of classifying eye irritation properties, this test article was determined to be practically non-irritating to the eyes of New Zealand white rabbits used in this study.
- Respiratory or skin sensitization : The test article was well tolerated when applied to guinea pig skin. All animals appeared healthy and gained weight at the end of the study. The test group animals did not exhibit scores higher than those of the negative control animals. The incidence for sensitization in test group animals was 0. According to the criteria for this test, there was no sensitization potential of the test article for the animals used in this study.
- Germ cell mutagenicity : Not classified
- Carcinogenicity : Not classified
- Reproductive toxicity : Not classified
- Specific target organ toxicity (single exposure) : Not classified
- Specific target organ toxicity (repeated exposure) : Not classified
- Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

LC50 (96h): 552,761.06 ppm (Menidia bberyllina)
LC50 (48h): 353,302.46 ppm (Mysidopsis bahia)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Humic acid (1415-93-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. US State regulations

No additional information available

SECTION 16: Other information

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product