

SAFETY DATA SHEET

Itaconix® TSI™ 710

Revision Date: September 11, 2015



Revision Number: 1.1.0

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier:

Product name Itaconix® TSI™, Itaconix® TSI™ 710
CAS-No. 1663489-58-4

Other identification means:

Synonyms Butanedioic acid, 2-methylene-, telomer with sodium phosphinate (1:1), sodium salt, decarboxylated

Use of substance/preparation and restrictions:

Recommended Use: Threshold inhibitor, mineral scale inhibitor, crystal growth inhibitor. For use in laundry detergent formulations, and in water treatment.
Uses advised against: No information available

SDS supplier details:

Company name: Itaconix Corporation
Company Identification: 2 Marin Way,
Stratham, NH 03885
603-775-4400

Company Emergency Telephone Number Emergency Phone: 1-603-775-4400

2. HAZARDS IDENTIFICATION

Classification:

This product is not considered hazardous under the 2012 OSHA Hazard Communication Standard (29 CER 1910.1200), EC No 1272/2008, and WHMIS 2015.

GHS label elements, including precautionary statement:

Emergency overview: Warning

Label elements

GHS-US labeling

Hazard pictograms (GHS-US/ CDN/ EU): No pictogram

Signal word (GHS-US/ CDN/ EU): Warning

Hazard statements (GHS-US/ CDN/ EU):

H303: May be harmful if swallowed

H333: May be harmful if inhaled

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Precautionary Statements (GHS-US/ CDN/ EU):

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS#	% by Wt
Butanedioic acid, 2-methylene-, telomer with sodium phosphinate (1:1), sodium salt, decarboxylated	1663489-58-4	40%

4. FIRST AID MEASURES

First aid measures:

Eye contact: Remove contacts, if present and easy to do. Flush with water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact: Wash exposed skin with water. Remove any contaminated clothing and wash before reuse. If symptoms persist consult physician.

Inhalation: Remove to fresh air. If symptoms persist consult physician.

Ingestion: Wash out mouth with water. Drink plenty of water. Do not induce vomiting unless directed by medical personal. Never give anything to an unconscious person. Get medical aid.

Notes to physician: Treatment based on judgment of attending physician.

Most important symptoms and effects, both acute and delayed: None known

Indication of any immediate medical attention and special treatment needed: None known

5. FIRE FIGHTING MEASURES

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water, alcohol-resistant foam, dry chemical, or carbon dioxide; as appropriate for surrounding materials.

Unsuitable extinguishing media None known

Specific exposure hazards None known

Hazardous combustion products None known

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Explosion data:

Sensitivity to mechanical impact: Not sensitive to mechanical impact.

Sensitivity to static discharge: Not sensitive to static discharge.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

General measures: Use personal protective equipment. Ensure adequate ventilation. See Heading 8. Exposure controls and personal protection.

Environmental precautions:

Environmental precautions: Prevent entry to sewers and public waters.

Methods and material for containment and cleaning up:

Method for containment: Contain any spills to prevent migration and entry into sewers or streams.

Methods for cleaning up: Use filtered vacuum cleaner, broom, or shovel to sweep, then dispose of properly.

Procedures for non-emergency personnel:

Protective equipment: Use appropriate personal protection equipment (PPE).

Emergency procedures: Evacuate unnecessary personnel.

Procedures for emergency personnel:

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

Reference to other sections: See Heading 8. Exposure controls and personal protection.

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7. HANDLING AND STORAGE

Precautions for safe handling:

Handling: Minimize exposure to dust in accordance with good industrial hygiene and safety practices. If dust present use approved dust mask.
Wear appropriate personal protective equipment.

Information about fire and explosion protection: Normal measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities:

Requirements to be met by storerooms and receptacles: Store in original container. Store in a cool, dry location. Protect from humidity and water.

Information about storage in one common storage facility: No further information.

Further information about storage conditions: No further information.

Specific end use(s): Store in cool, dry area. Always keep container closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Exposure guidelines Avoid dispersal of spilled material and runoff. If dust present use approved dust mask.

Appropriate engineering controls:

Engineering measures Showers. Eyewash stations.

Individual protection measures:

Eye protection: Safety goggles.

Skin protection: Impervious clothes.

Hand protection: Impervious gloves.

Respiratory protection: Use dust mask.

Working hygiene: Take usual precautions when handling. Workers should wash hands before eating, drinking or smoking.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical State	Liquid	Odour	Odourless
Colour	Dark orange to brown	Odour Threshold	No information available

<u>Property</u>	<u>Values</u>
pH 10 % solution	6.2
Melting/freezing point	-5 ° C
Boiling point/range	100 ° C
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	Not flammable
Flammability limit in air:	
Upper limit	No data available
Lower limit	No data available
Vapour pressure	No data available
Vapour density	No data available
Specific gravity	1.2g/cm ³
Water solubility	Soluble in water
Solubility other solvents	Not soluble in isopropanol
Partition coefficient:	
n-octanol/water	pK < -2.6
Autoignition temperature	No data available
Decomposition Temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other properties:

Softening point	No data available
VOC content %	No data available
Particle size	No data available
Particle size distribution	No data available

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10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions
Possibility of hazardous reactions:	None under normal processing
Hazardous polymerization:	Does not occur
Conditions to avoid:	None
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	None
Thermal decomposition / conditions to be avoided:	Stable under normal conditions

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Acute effects (acute toxicity, irritation and corrosively)

No known acute effects

Acute toxicity

LD50 (oral)	No data available
LD50 (dermal)	No data available
LD50 (inhalation)	No data available

Specific symptoms in animal tests

After swallowing	No data available
After skin contact	No data available
After inhalation	No data available

Irritation and corrosive effects

Irritant effects on skin	No data available
Irritant effects on eyes	No data available

Sensitization

After skin contact	No data available
After inhalation	No data available
Remarks	None

Delayed/immediate/chronic Effects from short and long term exposure:

Sensitization	No data available
Mutagenic effects	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT- single exposure	None known
STOT repeated exposure	None known

Chronic toxicity	None known
Target organ effects	None Known
Numerical measures of toxicity (based on GHS Chapter 3.1)	Not applicable

12. ECOLOGICAL INFORMATION

Ecotoxicity:

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Aquatic toxicity



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Persistence and degradability:

Bioaccumulative potential:

Mobility in soil:

Other adverse effects:

Other information:

No information available

No information available

No information available

No information available

No information available

No information available

Avoid release to the environment

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste. If chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Disposal methods

Contaminated packaging:

California Hazardous Waste Codes

Ecology – waste materials:

Dispose of contents/containers in accordance with local regulations.

Not available.

Avoid release to the environment.

14. TRANSPORT INFORMATION

DOT:

Proper Shipping Name

Hazard Class

TDG

MEX

ICAO

IATA:

Proper Shipping Name

Hazard Class

None

Non-hazardous for transport

Not regulated as a dangerous good

Not regulated as a dangerous good

Not regulated as a dangerous good

None

Non-hazardous for air transport

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IMDG/IMO:

Hazard class

Non-hazardous for transport

RID

Not regulated as a dangerous good

ADR

Not regulated as a dangerous good

ADN

Not regulated as a dangerous good

15. REGULATORY INFORMATION

International Inventories:

REACH

Complies, polymer exempt

REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals

Canadian Regulations:

DSL

NOT listed either on the DSL or NDSL

DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List.

US Federal Regulations:

TSCA

Complies

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory

US State Regulations:

California Proposition 65

This product does not contain any Proposition 65 Chemicals.

16. OTHER INFORMATION

Issuing Date: September 11, 2015

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Revision Note: Format changes only.

Disclaimer:

The manufacturer warrants that this product conforms to its standard specification when used according to direction. To the best of our knowledge the information contained herein is accurate. However we do not assume accuracy or completeness of the information contained herein.

Final determination of the suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

End of Safety Data Sheet