

Revision Date: 04 July 2019 Revision Number: HCS 2012 1.0

1. IDENTIFICATION

Product name: Itaconix® TSI™322

Product code: N/a

CAS-No.: 1052620-22-0

Other identification means:

Synonyms: Poly (itaconic co AMPS, sodium salt)

Recommended use: Scale inhibitor for use in detergent and cleaner formulations

Uses advised against: No information available

Company Identification

Company: Itaconix Corporation

Address: 2 Marin Way,

Stratham, NH 03885, USA

Telephone: +1 (603) 775-4400

E-mail: info@itaconix.com

Emergency Telephone: +1 (603) 775-4400 (Mon – Friday 09:00 – 17:00 US EST)

2. HAZARD(S) IDENTIFICATION

Classification according to GHS and HCS 2012

Not classified as hazardous substance

Labelling according to GHS and HCS 2012

Hazard pictograms (GHS-US):

Signal word (GHS-US):

None required

Other hazards

<0.1% of the substance contains unknown impurities



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Component (s): Itaconix® TSI™ 322 Poly (itaconic acid co AMPS, sodium salt). CAS Number 1052620-22-0.

4. FIRST AID MEASURES

Description of First Aid measure

General advice: Consult a doctor if any symptoms develop. Show this safety data sheet to the doctor in attendance.

If inhaled: In case of serious inhalation, remove patient to fresh air, allow to rest and keep warm.

In case of prolonged skin contact: Remove contaminated clothing and shoes. Wash clothing and clean shoes before reuse. Wash off with soap and plenty of water.

In case of eye contact: If possible remove contact lenses. Flush immediately with plenty of water for at least 15 minutes, keeping eyelids open.

If swallowed: DO NOT induce vomiting. Rinse mouth out and then drink plenty of water.

Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties of the product have not been thoroughly investigated

Indication of any immediate medical attention and special treatment needed

No data available



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5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Special hazards arising from the substance

Carbon oxides

Precautions for fire-fighters

Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear suitable protective clothing to avoid contamination (gloves, eye protection, labcoat/overalls). In the event of burning product, avoid breathing vapors, mist or gas.

Methods and materials for containment and cleaning up

Do not let product enter drains. Contain/absorb with non-combustible absorbent material (eg, sand, earth, vermiculite, chemical absorbent) and place in suitable, closable container for safe disposal. For protective clothing see Section 8. For disposal see section 13

7. HANDLING AND STORAGE

Precautions for safe handling

Normal measures as prevention against fire. Minimize exposure to mist, vapor and spray in accordance with good industrial practices. Wash hands thoroughly after handling and wear appropriate PPE.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed to avoid contamination. Store in a cool place.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

INGREDIENTS WITH WORKPLACE CONTROL PARAMETERS (PEL/TLV etc): Workplace control parameters are not available for this substance

Exposure controls

Appropriate engineering controls: Ensure good ventilation. Arrange for eye wash (recommended). Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye and hand protection, laboratory lab coat or overalls. Always check applicability with your supplier of protective equipment.

Respiratory protection: Not required

Eye/face protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR §1910.133 or European Standard EN166.

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of 29 CFR §1910.138 or European Standard EN 374. Butyl rubber may be suitable. (Break-through times can vary depending on thickness, use and source. Change gloves regularly.)

Skin protection: Laboratory coat or overalls.

9. PHYSICAL AND CHEMICAL PROPERTIES

a) Appearance Off white, granular solid

b) Odor No odor

c) Odor Threshold No data available

d) pH 5.2 (10% aq solution)*

f) Initial boiling point and range No data available

g) Flash point No data available

h) Evaporation Rate No data available

i) Flammability (solid, gas) No data available



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j) Upper/Lower flammability or explosive limits
 k) Vapor pressure
 l) Vapor density
 No data available
 No data available

m) Relative density

n) Solubility (ies)

o) Partition coefficient: n-octanol/water

p) Auto ignition temperature

q) Decomposition temperature

r) Viscosity

Bulk density = 0.7g/cm^{3*}

Highly water soluble

No data available

No data available

No data available

No data available

s) Explosive properties

No ingredients have these properties
t) Oxidizing properties

No ingredients have these properties

10. STABILITY AND REACTIVITY

Reactivity

Stable product under recommended storage and handling conditions.

Chemical stability

Stable product under recommended storage and handling conditions

Possibility of hazardous reactions

Stable product.

Conditions to avoid

Avoid temperatures greater than 90°C/195°F.

Incompatible materials

Avoid strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products may be formed under fire conditions e.g. Carbon oxides

^{*} Internal test protocol



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11. TOXICOLOGICAL INFORMATION

<u>Information on toxicological effects</u>

No data available on the substance. Data derived from or based on individual components shown below:

(a) acute toxicity Based on available data, the classification criteria are not met. (b) skin corrosion/irritation Based on available data, the classification criteria are not met (c) serious eye damage/irritation Based on available data, the classification criteria are not met (d) respiratory or skin sensitization Based on available data, the classification criteria are not met. (e) germ cell mutagenicity Based on available data, the classification criteria are not met (f) carcinogenicity Based on available data, the classification criteria are not met. (g) reproductive toxicity Based on available data, the classification criteria are not met. (h) STOT-single exposure Based on available data, the classification criteria are not met. (i) STOT-repeated exposure Based on available data, the classification criteria are not met. (j) aspiration hazard Based on available data, the classification criteria are not met.

Likely routes of exposure: Contact with skin and eyes or by inhalation of spray.

Symptoms related to the physical, chemical and toxicological characteristics: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Delayed and immediate effects as well as chronic effects from short and long-term exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Numerical measures of toxicity (eg ATE): Unknown

Additional Information: None

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ingredients classified as hazardous to the environment

Persistence and degradability

No data available.

Bio accumulative potential

No data available.



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Mobility in soil

No data available.

Other adverse effects

None known. No ingredients classified as hazardous for the environment present at or above 0.1%. Calculations according to the precepts of GHS show this product not to be classified as hazardous to aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Dispose of in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements. Treat as non-hazardous waste. Burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable product to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Avoid release to the environment.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

Not classified as dangerous for transport under international or DOT regulations.

UN number None

UN proper shipping name None

<u>Transport hazard class(es)</u> None

Packing group None

Environmental hazards None



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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

Special precautions for user None

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the substance

All components of Itaconix® TSI™322 are listed either on the DSL (Canada) or NDSL and comply with TSCA .

16. OTHER INFORMATION

Hazardous Material Information (HMIS)		National Fire Protection Association (NFPA)	
Health	0	0	Health
Flammability	0	0	Fire
Physical	0	0	Instability
Personal Protection	В		NA

Health4 Deadly3 Extreme Danger2 Dangerous1 Slight hazard0 No hazardFlammability/Fire4 < 73 °F</td>3 < 100 °F</td>2 < 200 °F</td>1 >200 °F0 Will not burnPhysical/Instability4 - May detonate3 Explosive2 Unstable1 Normally stable0 Stable

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Supersedes Version N/a
Nature of revision First issue

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 §CFR 1910.1200.

The above information is believed to be correct at the time of preparation but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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