

enturia™

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Iodine (2%) Tincture

Formula: Mixture

MSDS Date of Preparation: January 29, 2007

ENTURIA, INC

11400 Tomahawk Creek Pkwy

Leawood, KS 66211

PHONE: (800) 523-0502 FAX: (913) 451-8509

EMERGENCY CONTACT: CHEMTREC 1-800-424-9300

- This number to be used only for spills, leaks, fire, exposure or accidents. Please direct all other inquiries to Enturia Customer Service at (800) 523-0502.

2. HAZARDS IDENTIFICATION

This product consists of small glass ampule containing a clear, orange/brown, water-thin liquid with a strong alcoholic odor inside an applicator.

EMERGENCY OVERVIEW

WARNING!

Flammable Liquid and Vapor. Causes severe eye irritation. May cause skin irritation. Inhalation of vapors may cause respiratory irritation and central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness. May cause skin sensitization (allergic skin reaction).

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS No. | Amount |
|-------------------------|-----------|--------|
| Ethanol (Ethyl Alcohol) | 64-17-5 | 50% |
| Iodine, USP Powder | 7553-56-2 | 2% |

4. FIRST AID MEASURES

Skin: Wash material off the skin with water. If redness, rash or a burning sensation develops, seek medical attention and discontinue use. .

Eyes: Flush with copious amounts of water. After initial flushing remove any contact lenses and continue flushing for at least 15minutes. Get medical attention if irritation persists.

Ingestion: Give individual one to two glasses of water to drink. Get immediate medical attention. (Never give anything by mouth to an unconscious person)

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Inhalation: If symptoms of exposure develop, move to fresh air. Seek medical attention if symptoms persist.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Water fog, alcohol-resistant foam, carbon dioxide or dry chemical. Water spray can be used to cool exposed containers and structures, dilute spills and disperse flammable vapors.

Special Fire Fighting Procedures: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

Unusual Fire & Explosion Hazards: Ampoules may explode if exposed to extreme heat or flame. Vapors are heavier than air and will travel along surfaces to remote ignition sources and flash back.

6. ACCIDENTAL RELEASE MEASURES

For small spills, wipe or mop up and rinse to sewer serviced by a wastewater treatment facility. For large spills, eliminate sources of ignition and ventilate spill area. Wear skin, eye and respiratory protection during cleanup(See Section 8). Soak up liquid with inert absorbent and collect into a suitable waste container. Wash residue from spill area with water and flush to sewer serviced by a wastewater treatment facility if permitted.

7. HANDLING AND STORAGE

Avoid prolonged exposure (ingestion, inhalation, or skin). Avoid breathing vapors. Use in well ventilated areas. Keep product away from heat, sparks and flames.

Store in a cool, dry, well-ventilated area away from incompatible chemicals and all sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

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| Ethanol (Ethyl Alcohol) | 1000 ppm PEL-TWA 1000 ppm TLV-TWA |
| Iodine | 0.1 ppm PEL-Ceiling 0.1 ppm TLV-Ceiling |



Eye Protection: Avoid eye contact. Safety glasses or goggles recommended if eye contact is possible.

Gloves: Latex rubber or nitrile recommended for prolonged contact.

Respiratory Protection: If the exposure limits are exceeded a NIOSH approved organic vapor/acid gas respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.

9. PHYSICAL AND CHEMICAL PROPERTIES

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|--------------------------|-------------------------|------------------------------|-----------------|
| Boiling Point: | Approx 173°F | Melting Point: | N/A |
| Vapor Pressure: | 59 mmHG @ 20C (ethanol) | Specific Gravity: | 0.96 |
| Vapor Density: | 1.5 (ethanol) | % Volatile by volume: | 95 |
| Water Solubility: | Soluble | Evaporation Rate: | Approx. 2.5 |
| pH | Unknown | Flash point: | 80°F TCC |
| Flammable Limits: | LEL: 3.3%(ethanol) | UEL: | 19.0% (ethanol) |

Appearance & Odor: Clear, orange/brown, water-thin liquid with a strong alcoholic odor

10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Reducing material, ammonium hydroxide, metallic powder, oxidizing materials, acids.

Hazardous polymerization: Will not occur.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, iodine vapors.

Conditions to avoid: Heat, sparks and open flames.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:

Ingestion: Ingestion may cause mucous membrane and gastrointestinal irritation, abdominal pain, nausea, vomiting, dizziness and drowsiness. May cause kidney and thyroid damage.

Inhalation: Inhalation of vapors may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness and drowsiness.

Eye: Contact may cause severe irritation with redness, tearing and pain with possible eye damage.

Skin: May cause irritation, drying, defatting of the skin. Prolonged contact may cause dermatitis. Repeated contact may cause skin sensitization (allergic reaction in some individuals).

Chronic: Prolonged overexposure to ethanol may cause liver damage. Ethanol has been found to cause adverse reproductive effects in humans. Prolonged overexposure to iodine may cause iodism characterized by salivation, nasal discharge, fever, laryngitis, bronchitis, and skin rash. Chronic exposure to iodine may also cause kidney and thyroid damage.



Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

Medical Conditions Aggravated by Exposure: Employees with pre-existing skin, liver, kidney, thyroid and respiratory diseases may be at increased risk from exposure.

Acute Toxicity Values:

Ethanol: Oral Rat LD50 7,060 mg/kg; Inhalation Rat LC50 20,000 ppm/10 hour; Skin Rabbit LD50 20,000 mg/kg

Iodine: Oral Rat LD50 14,000 mg/kg

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| 12. ECOLOGICAL INFORMATION |
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Ethanol: The LC50/96-hour values for fish are over 1000 mg/l.

Iodine: The LC50/96-hour values for fish are 10-100 mg/l

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| 13. DISPOSAL CONSIDERATIONS |
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Dispose in accordance with local, state and federal environmental regulations.

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| 14. TRANSPORT INFORMATION |
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DOT Information

Proper Shipping Name: Ethanol Solution

Hazard Class: 3, PG III

UN Number: UN1170

Exemption for US Ground Transport: Consumer Commodity, ORM-D

Exemption for US Air Transport: Consumer Commodity, ORM-D-AIR

Small Quantity Exception: 49CFR173.4

IMO Information

Proper Shipping Name: Ethanol Solution

Hazard Class: 3, PG III

UN Number: UN1170

Limited Quantity: 5 L/inner receptacle. Limit gross weight - 30 kg/package

IATA Information

Proper Shipping Name: Ethanol Solution

Hazard Class: 3, PG II

UN Number: UN1170

Packing Instruction: 309

Limited Quantity Packing Instruction: Y309

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Alternate Shipping Description: Consumer Commodity, 9, ID8000

Excepted Small Quantities of Dangerous Goods: Class 3, PG III inner limit 30 mL, Outer Package Limit 1 L

15. REGULATORY INFORMATION

CERCLA: This product is not subject to CERCLA reporting requirements, however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health, Chronic Health, Fire Hazard.

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

16. OTHER INFORMATION

HMIS Rating: Health = 2 Fire = 3 Reactivity = 0

ACGIH: American Conference of Governmental Industrial Hygienists
IARC: International Agency for Research on Cancer
OSHA: Occupational Safety and Health Administration
NTP: National Toxicology Program
PEL: Permissible exposure Level (OSHA)
TLV: Threshold Limit Value (ACGIH)
TWA: Time Weighted Average over 8 hours
TCC: Tagged Closed Cup

| REVISION SUMMARY | |
|-------------------|---|
| CAF NUMBER | 2007-08-03 |
| REVISION | D |
| DATE | 08/01/07 |
| SUMMARY OF CHANGE | Correct CAS No. for Iodine, USP Powder from 7553-56-28 to 7553-56-2 |
| REVISION SUMMARY | |
| CAF NUMBER | 2007-01-68 |
| REVISION | C |
| DATE | 01/29/07 |
| SUMMARY OF CHANGE | Update Co. name. |

To view remaining history See Rev. C