### **SAFETY DATA SHEET**

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: TRANSENE COMPANY, INC.

ADDRESS: DANVERS INDUSTRIAL PARK

10 ELECTRONICS AVENUE DANVERS, MA 01923,

TEL: (978) 777-7860 FAX: (978)-739-5640

WWW.TRANSENE.COM

EMERGENCY NO. 1-800-424-9300 CHEMTREC

MATERIAL NAME: GOLD ETCHANT TYPE TFA

**REVISED: August 2012** 

CHEMICAL FAMILY: 12 complex aqueous solution

Product Number: 060-0015000

### **SECTION 2. HEALTH HAZARD INFORMATION**

#### **GHS** Classifications

Oxidizing liquids: No

Acute toxicity Oral: Category 4 Acute toxicity Inhalation: None

Skin corrosion / Skin irritation: Category 3 Serious eye damage / Eye irritation: Category 2

Respiratory or skin sensitization: No

Special target organ systemic toxicity repeated exposure: Category 2

Acute aquatic environmental hazards: Category 3

### Pictograms or Hazard symbols



Warning Harmful if swallowed.

Warning
Causes mild
skin irritation.

Warning Causes eye irritation.

Harmful to aquatic life.

**(!**)

Warning
May cause damage to endocrine
or gastrointestinal system
through prolonged or repeated
exposure.

### **Precautionary Statement Prevention**

Use only in a well-ventilated area. Do not eat, drink or smoke when using this product. Do not breathe fume/gas/mist/vapors/spray.

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

Wash the hands thoroughly after handling.

Avoid release to the environment

### SECTION 3.COMPOSITION/INFORMATION ON INGREDIENTS

Material Iodine Potassium Iodide Water	CAS# 7553-562 CAS# 7681-11-0	Wt % 2-4 40-45 51-58
Total		100

### **SECTION 4. FIRST AID MEASURES**

### **EFFECTS OF OVEREXPOSURE**

FIRST AID:

Eve Contact: Irritant to naked eye; in case of contact flush eyes well for 15 minutes, lifting the lower and upper eyelids occasionally.

**Skin Contact:** Obtain medical attention: Irritant to exposed skin. Flush skin well with water for 15 minutes, wash with soap and water. Remove affected clothing, get medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration. Seek medical attention. Ingestion: Give water or milk to drink. Induce vomiting if medical help is not immediately available. Never give anything by mouth to an unconscious person. Get Medical Attention immediately.

# SECTION 5. FIRE FIGHTING MEASURES

Flash Point and Method	Autoignition Temp.	Flammability Limits In Air	<b>LOWER</b>	<u>UPPER</u>
non-flammable	NA	•	NA	NA

Extinguishing media: Water spray or fog, carbon dioxide and dry chemical! anything suitable for surroundings Water may cause frothing! Wear chemically retardant gear and NIOSH approved Special fire fighting procedures: self-contained breathing apparatus. Thermal decomposition produces toxic fumes. Contact with oxidizing reagents may cause extremely violent combustion.

# SECTION 6. ACCIDENTAL RELEASE MEASURES

**SPILLS, LEAKS:** Ventilate area of leak or spill. Clean up personnel should wear protective clothing and NIOSH approved respirator. Dike and cover the contaminated areas with sodium sulfite or sodium thiosulfite. Neutralize slurry with soda ash. Neutralized waste may be transferred to a closed container and sent to an approved waste disposal facility.

# SECTION 7. HANDLING AND STORAGE

Storage & Handling Information Store below 80 degrees F. Store in a cool dry place. Do not store near incompatible products or open flame. Store away from direct sunlight.

# SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**Respiratory protection:** Wear NIOSH/MESA approved full or half face piece (with goggles) respiratory protective equipment to avoid exposure to iodine vapors above 0.1ppm. A respiratory protection program complying with requirements of 29CFR 1910.134 is recommended.

**Ventilation:** Where adequate ventilation is not available, use NIOSH approved vapor respirator with dust, fume and mist filters. Local ventilation through fume hoods or laminar flow stations is also preferred. Keep fumes away from strong bases.

Protective gloves: Skin contact should be minimized through use of rubber gloves.

Other protective equipment: Steel tipped shoes/eye wash station/chemical safety chemical retardant clothing. Eye protection: Safety goggles / face shield

### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Form:Liquid

Appearance: red brown Odor: mild odor. pH: 6.5 - 8.0-10 °C

Melting point: Boiling point/Boiling range: 100-105 °C

Flash point: N.A.

**Ignition point:** Will not ignite.

Danger of explosion: Product is not explosive

**Decomposition temperature:**  $> 150 \, {}^{\circ}\text{C}$ Vapor density (Air = 1): N/A Volatiles, %: 50-80 Vapor pressure at 15° C, mm Hg: 1

Specific gravity: 1.27-1.32 g/cc

Solubility in / Miscibility: Completely miscible in water

Evap. Rate (Water = 1):

Propyl butyl-carbinol/moisture distribution coefficient: Aqueous solution

### **SECTION 10. STABILITY AND REACTIVITY**

Stability Conditions to avoid: Excess heat, reacts with NH<sub>4</sub>OH to form Stable X

> shock sensitive iodides. Unstable

Incompatible with:

Strong reducing agents, ammonia, powdered metals, alkali metals.

Hazardous decomposition products: oxides of iodine and iodine fumes

Hazardous May occur Conditions to avoid: Excess heat, damp.

polymerization: Will not occur X

### **SECTION 11. TOXICOLOGICAL INFORMATION**

#### **EFFECTS OF EXPOSURE:**

**Ingestion:** May cause burning sensations, severe corrosive gastroenteritis, abdominal pain, diarrhea, fever, vomiting, stupor and shock. Probable lethal dose is 2 to 4 gm of free iodine.

**Inhalation:** Highly irritant to the mucous membranes and respiratory tract. Excessive tears, rhinitis, tightness in the chest, sore throat, headache and delayed pulmonary edema can result.

**Skin contact:** The crystalline form or strong solutions are severe skin irritants. Lesions resemble thermal burns.

Eye contact: Vapors severely irritate the eyes. Cause tearing and inflammation of the eyelids.

Chronic exposure: May cause insomnia, conjunctivitis, inflammation of the nasal mucous, bronchitis, tremor, rapid heart beat, diarrhea and weight loss. Allergic sensitization can occur.

**Aggravation of pre-existing conditions:** Person with pre-existing skin disorders, eye problems, impaired respiratory function or disease of the thyroid, lungs or kidney may be more susceptible to the effects of the substance.

Test data: There is no test data for this product. Composition test data:

Iodine · LD<sub>10</sub> : 28mg/Kg (Humanity Oral)

LC<sub>LO:</sub> 137ppm/1H (mouse, Inhalation)

Potassium Iodide: LD<sub>50</sub>: 2279mg/Kg (mouse, Oral)

### **SECTION 12. ECOLOGICAL INFORMATION**

Persistence/degradability: No test data found.

**Bioaccumulation:** There is no evidence of bioaccumulation.

**Ecotoxicity:** There is no test data for this product. Composition information:

Potassium Iodide : LC<sub>50</sub>(fish) : 8960mg/L/96h

Iodine :  $LC_{50}(fish) : 0.1mg/196h$ 

### **SECTION 13. DISPOSAL CONSIDERATIONS**

DISPOSAL: Dispose of in accordance with all federal state and local regulations. Send waste to an approved waste disposal facility.

# **SECTION 14. TRANSPORTATION INFORMATION**

UN/No: Non-regulated/non-restricted.

# **SECTION 15. REGULATORY**

SARA Title III Hazard Classes: Fire Hazard--No Release of Pressure--No Acute Health Hazard--No

# **SECTION 16. OTHER INFORMATION**

NFPA Codes: Health: 2

Flammability: 0 Reactivity: 0 Other: N/A

# ADDENDUM TO MATERIAL SAFETY DATA SHEET **REGULATORY STATUS**

THIS ADDENDUM MUST DETACHED FROM THE MSDS ALUM TYPE D		CH					
<b>IDENTIFIES SARA 313 SU</b>	<u>JBSTANC</u>	E(S)	HAZARD CATEGORIES FOR SARA				
Any copying or distribution of the MSDS must			Section 311/312 Reporting				
include a copy of this adden (Chem.Key:PHACD)	<u>.dum</u>		Acute X	Chronic X	<u>Fire</u>	<u>Pressure</u>	Reactive X
Product or Components Of Products		EHS Sect.	SARA Secti	on 313 Chen	nicals	CERCLA Sec.	RCRA
	RQ (lbs.)	TPQ (lbs.)	Name List	Chemi Catego		RQ (lbs.)	Section 261
IODINE (7553-56-2)	No	No	No	No		No	No
SARA Section 302 EHS RC SARA Section 302 EHS TP following a Threshold Plant than 100 micrometers, the T SARA Section 313 Chemica 372.65. CERCLA Sec 103: Comprel air, land or water of these has National Response Center (SPCRA: Resource Conservations)	Q: Threshoding Quantification Quanti	old Planning ty signifies lanning Qu Substances vironmenta abstances w 802); Listed	g Quantity of I s that if the mat antity + 10,000 subject to annual Response, Co which exceed the lat 40 CFR 30	Extremely Haterial is a soli 0 LBS. Lual release resonnersation at Reportable 2.4	zardous d and ha porting and Liah Quanti	s Substance. An a as a particle size requirements list pility Act (Superf ty (RQ) must be	asterisk (*) equal to or larger ted at 40 CFR fund). Releases to reported to the
RCRA: Resource Conservat hazards and toxic under 40 (			Act. Commerc	ial chemical	product	wastes designate	ed as acute
Effective Date 11-1-02 Sup	ersedes 9-	5-85		IODI	NE		

