

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard. 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB NO. 1218-0072

Identity (As used on Label and List)
Immersion Gold CF Part A

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacture's Name TRANSENE COMPANY, INC.	Emergency Telephone Number CHEMTREC 1-800-424-9300 (24 hrs)
Address (Number, Street, City, State and ZIP Code) DANVERS INDUSTRIAL PARK 10 ELECTRONICS AVENUE DANVERS MA 01923	Telephone Number for Information TEL 978-777-7860 FAX 978-739-5640 Date Prepared April 22, 2004 REV 1 Preparer (optional) Christopher Christuk

Section II - Hazardous Ingredients / Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	CAS#	OSHA PEL	ACGIH TLV	Other Limits	
				Recommended	% (optional)
ETHYLENEDIAMINE	CAS# 000107-15-3	10ppm	10ppm		< 5%
Potassium Fluoride	CAS# 7789-23-3	Not Established	NE		< 5%

BALANCE AQUEOUS-NON HAZARDOUS

THIS DOCUMENT IS PREPARED PURSUANT TO THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910,1200)

IN ADDITION, OTHER SUBSTANCES NOT HAZARDOUS PER THIS OSHA STANDARD MAY BE LISTED. WHERE PROPRIETY

INGREDIENT SHOWS, THE IDENTITY MAY BE MADE AVAILABLE AS PROVIDED IN THIS STANDARD.

Section III - Physical / Chemical Characteristics ** OF MIXTURE * OF ETHYLENEDIAMINE

Boiling Point	**>240° *239F,115C	Specific Gravity (H2O = 1)	**>1.0 *0.393-0.906 25/25C
Vapor Pressure (mm Hg.)	**N/A *10mmHg @20	Melting Point	**N/A *N/A
Vapor Density (AIR = 1)	**N/A *2.07	Evaporation Rate (Butyl Acetate = 1)	**N/A *N/A

Solubility in Water **MIXES COMPLETELY *MIXES COMPLETELY

Appearance and Odor ** Clear,
* COLORLESS LIQUID; AMMONIACAL ODOR

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) **APPROX. 150°F *NA:Non-flammable	Flammable Limits NE	LEL NE	UEL 14.2%@100°C
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Extinguishing Media Use media appropriate for surrounding fire

Special Fire Fighting Procedures
Wear NIOSH approved self-contained breathing apparatus

Unusual Fire and Explosion Hazards N/A

(Section V -Reactivity Data

Stability Unstable Conditions to Avoid

Stable | X

Incompatibility (Materials to Avoid) Strong acids.

Hazardous Decomposition or Byproducts
NITROGEN OXIDES WHEN BURNED.

Hazardous Polymerization	May Occur	<input type="checkbox"/>	Conditions to Avoid
	May Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation ? YES	Skin? YES	Ingestion? YES
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Health Hazards (Acute and Chronic)

REPEATED EXCESSIVE EXPOSURES MAY CAUSE LIVER AND KIDNEY INJURY. DID NOT CAUSE CANCER IN LONG-TERM ANIMAL STUDIES. BIRTH DEFECTS ARE UNLIKELY. EXPOSURES HAVING NO EFFECT ON THE MOTHER SHOULD HAVE NO EFFECT ON THE FETUS. DID NOT CAUSE BIRTH DEFECTS IN ANIMALS; OTHER EFFECTS WERE SEEN IN THE FETUS ONLY AT DOSES WHICH CAUSED TOXIC EFFECTS TO THE MOTHER. IN ANIMAL STUDIES, HAS SHOWN NOT TO INTERFERE WITH REPRODUCTION. PREPONDERANCE OF NEGATIVE DATA INDICATES MINIMAL OR NO MUTAGENIC POTENTIAL.

Carcinogenicity	NTP? N/A	IARC Monographs? N/A	OSHA Regulated? N/A
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Signs And Symptoms of Exposure

EYE CONTACT: MAY CAUSE IRRITATION

SKIN CONTACT & ABSORPTION: SHORT SINGLE EXPOSURE MAY CAUSE irritation.

INGESTION: SINGLE DOSE ORAL TOXICITY IS LOW TO MODERATE. INGESTION MAY CAUSE GASTROINTESTINAL IRRITATION OR ULCERATION. MAY CAUSE SEVERE BURNS OF MOUTH AND THROAT. THE LD50 IS 1460mg/kg FOR RATS AND 470 mg/kg FOR GUINEA PIGS.

INHILATION: EXCESSIVE VAPOR CONCENTRATIONS ARE ATTAINABLE AND COULD BE HAZARDOUS ON SINGLE EXPOSURE. EXCESSIVE EXPOSURE MAY CAUSE SEVERE IRRITATION TO THE UPPER RESPIRATORY TRACT. MAY CAUSE RESPIRATORY SENSITIZATION IN SUSCEPTIBLE INDIVIDUALS.

Medical Conditions

Generally Aggravated by Exposure N/A

Emergency and First Aid Procedures

EYES: IMMEDIATE AND CONTINUOUS IRRIGATION WITH FLOWING WATER FOR AT LEAST 15 MINUTES.

PROMPT MEDICAL CONSULTATION IS ESSENTIAL.

SKIN: IN CASES OF CONTACT, IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN IF IRRITATION PERSISTS. WASH CLOTHING BEFORE REUSE. DESTROY CONTAMINATED SHOES OR OTHER ARTICLES THAT CANNOT BE DECONTAMINATED.

INGESTION: DO NOT INDUCE VOMITING. GIVE LARGE AMOUNTS OF WATER OR MILK IF AVAILABLE AND TRANSPORT TO MEDICAL FACILITY.

INHILATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. CONSULT A PHYSICIAN.

Section VII - Precautions For Safe Handling And Use

Steps to Be Taken in Case Material is Released or Spilled

LARGE SPILL- DIKE UP AND DILUTE WITH WATER. PUMP INTO APPROPRIATE CONTAINERS. SMALL SPILL- DILUTE WITH WATER AND RECOVER OR USE NON-COMBUSTIBLE ABSORBENT MATERIAL / SAND AND SHOVEL INTO SUITABLE CONTAINER.

Waste Disposal Method LARGE QUANTITIES COULD BE RECOVERED. OTHERWISE, INCINERATE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS. DO NOT DUMP INTO SEWERS, ON THE GROUND OR INTO ANY BODY OF WATER.

Precautions to be taken in handling and storing

EXPOSURE GUIDELINES:

ACGIH TLV AND OSHA PEL ARE 10ppm. (ETHYLENEDIAMINE)

GROUND ALL TRANSFER EQUIPMENT. STORE BELOW 120F, 49C AND ABOVE 51F, 11C. HOLD BULK STORAGE UNDER NITROGEN BLANKET. COPPER AND ALLOYS OF COPPER SHOULD NOT BE USED AS THEY ARE QUICKLY CORRODED.

Other Precautions

Section VIII - Control Measures

Respiratory Protection (Specify Type) ATMOSPHERIC LEVELS SHOULD BE MAINTAINED BELOW THE EXPOSURE GUIDELINE. WHEN RESPIRATORY PROTECTION IS NEEDED USE AN APPROVED AIR-PURIFYING RESPIRATOR.

Ventilation	Local Exhaust	X	Special
	Mechanical (General)	X	Other

Protective Gloves RUBBER

Eye Protection CHEMICAL GOGGLES

REV 1

Quantity (As shown on Label and List)
 Approximate Grade CP 281 A

Section I
 Manufacturer's Name
TRANSFEN COMPANY, INC.
 Address (Number, Street, City, State and ZIP Code)
DANVERS INDUSTRIAL PARK
18 ELECTRONIC AVENUE
DANVERS MA 01923

Emergency Telephone Number
CHEMTRAC 1-800-424-9000 (24 HR)
 Telephone Number for Information
TEL 978-771-7700 FAX 978-770-3680
 Date Prepared
April 22, 2004 REV 1
 Prepared by (Name)
Christopher Chisler

Section II - Hazardous Ingredients / Identity Information

Hazardous Component / Specific Chemical Name (Common Name)	OSHA PEL	ACUTE TLV	Other Limit Recommended	Notes
BALANCE AQUEOUS NON HAZARDOUS				

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Section III - Physical / Chemical Characteristics	% OF MIXTURE	% OF ETHYLENE DIAMINE
Boiling Point	~ 240° ~ 217°-215°C	Specific Gravity (20°C/20°C)
Vapor Pressure (atm Hg)	~ 0.01 ~ 10 mmHg (20°C)	Melting Point
Vapor Density (AIR = 1)	~ 1.5	Evaporation Rate (Butyl Acetate = 1)
Appearance and Odor	~ 0.01 ~ 10 mmHg (20°C)	~ 0.01 ~ 10 mmHg (20°C)

Section IV - Fire and Explosion Hazard Data
 Flash Point (Method Used) ***APPROX. 150°** ***NA Non-Flammable** **NE** **LEL NE** **UB 1425/140°C**

Extinguishing Media: Use water or alcohol for extinguishing fire.
 Special Fire Fighting Procedures: Wear NIOSH approved self-contained breathing apparatus.

Usual Fire and Explosion Hazards: **NA**

Section V - Reactivity Data
 Reactivity: Unstable Conditionally Stable