



# MATERIAL SAFETY DATA SHEET

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MSDS-E-TPC14




Prepared to OSHA, ACC, ANSI, WHMIS, NOHSC &amp; 2001/58 EC Standards

MSDS Revision: 1.0

MSDS Revision Date: 01/15/2008

## 1. PRODUCT IDENTIFICATION

CHEMICAL RESPONSE CARD: **03**

1.1	Product Name:	DeoxIT® Brand TIP TINNER, 0.5 oz. (14.2 g)	RESPONSE TEAM PPE:				
1.2	Chemical Name:	See ingredients listed in section 3	WHMIS:				
1.3	Synonyms:		HEALTH:				1
1.4	Trade Names:		FLAMMABILITY:				0
1.5	Product Use:	Cleaner Compound for soldering tips	REACTIVITY:				0
1.6	Manufacturer's Name:	CAIG Laboratories, Inc.	PERSONAL PROTECTION:				B
1.7	Manufacturer's Address:	12200 Thatcher Court, Poway, CA 92064-6876					
1.8	Business Phone:	+1 (800) 224-4123					
1.9	Emergency Phone:	CHEMTREC +1 (703) 527-3887 / +1 (800) 424-9300					
1.10	Other Product Names:						

## 2. HAZARD IDENTIFICATION

2.1	Hazard Identification:	This product is classified as a hazardous substance and as a dangerous good according to the classification criteria of NOHSC and ADG Code (Australia).					
2.2	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
2.3	Effects of Exposure:	EYES: Can cause irritation, tearing, and blurred vision. SKIN: Can cause minor irritation and burns. INGESTION: Can cause damage to throat and esophagus. Can cause nausea, vomiting and diarrhea. INHALATION: Can cause nasal irritation, dizziness, nausea and headache.					
2.4	Symptoms of Overexposure:	EYES: Mild irritation, redness, and watering. SKIN: Contact dermatitis, characterized by localized red or puffy dry skin and itching. INGESTION: May cause nausea, vomiting, and diarrhea. INHALATION: Mouth, nose, and throat irritation, dizziness, nausea, light-headedness.					
2.5	Acute Health Effects:	EYES: Mild to moderate irritation to eyes from material and fumes during heating. SKIN: Fumes may be mildly irritating to skin. INGESTION: May cause gastrointestinal irritation. INHALATION: Fumes during heating may irritate mucous membranes and upper respiratory system.					
2.6	Chronic Health Effects:	None reported by the manufacturer.					
2.7	Target Organs:	Eyes, Skin					



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## 3. COMPOSITION & INGREDIENT INFORMATION

CHEMICAL NAME(S)	CAS No.	RTECS No.	EINECS No.	%	EXPOSURE LIMITS IN AIR (mg/m³)					
					ACGIH - ppm		OSHA - ppm			OTHER
					TLV	STEL	PEL	STEL	IDLH	
TIN	7440-31-5	XP7320000	231-141-8	≤ 55.0	2	NA	2	NA	NA	
AMMONIUM PHOSPHATE	7783-28-0	TB9375000	231-987-8	≤ 55.0	NA	NA	NA	NA	NA	

## 4. FIRST AID MEASURES

4.1	First Aid:				
	EYES:	As a precaution remove contact lenses if worn and flush eyes thoroughly with copious amounts of water for at least 15 minutes, holding eyelid(s) open to ensure complete flushing. If irritation persists, seek immediate medical attention.			
	SKIN:	Remove contaminated clothing. Wash the skin with soap and water. If irritation persists, seek prompt medical attention. Do not wear contaminated clothing until after it has been properly cleaned.			
	INGESTION:	Do not induce vomiting! As a precaution give the person a glass of water or milk to drink and get medical attention immediately.			
	INHALATION:	If overcome by vapor of hot product, remove victim to fresh air at once. If breathing is difficult, administer supplemental oxygen and seek immediate medical attention. If breathing stops, perform artificial respiration.			
4.2	Medical Conditions Aggravated by Exposure:				
	None reported by the manufacturer.				
		HEALTH	1		
		FLAMMABILITY	0		
		REACTIVITY	0		
		PROTECTIVE EQUIPMENT	B		
		EYES	SKIN		

NA = Not Available; ND = Not Determined; NE = Not Established; C = Ceiling Limit; See Section 16 for Additional Definitions of Terms Used

NOTE: all WHMIS required information is included. It is located in appropriate sections based on the ANSI Z400.1-2004 format.

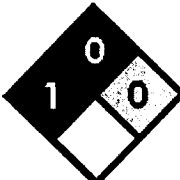


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## 5. FIREFIGHTING MEASURES

5.1	Flashpoint & Method: <b>NA</b>				
5.2	Autoignition Temperature: <b>NA</b>				
5.3	Flammability Limits:	Lower Explosive Limit (LEL):	<b>ND</b>	Upper Explosive Limit (UEL):	<b>ND</b>
5.4	Fire & Explosion Hazards: <b>NA</b>				
5.5	Extinguishing Methods: <b>Dry Chemical or Equivalent type, suitable for metal type fires</b>				
5.6	Firefighting Procedures: <b>Wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing. Use a water spray to cool containers involved in fire. Do not use direct water stream. Container storage areas exposed to direct flame contact should be cooled with large quantities of water as needed to prevent weakening of container structure. Keep containers cool until well after the fire is out to prevent rupture. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway.</b>				

## 6. ACCIDENTAL RELEASE MEASURES

6.1	Spills: <b>Ventilate if in enclosed area. Eliminate all ignition sources. Small Spills: Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and transfer to hood. Large Spills: Contain by diking with a non-combustible absorbent inorganic material. Prevent runoff from entering sewers, storm drains, surface water and soil. Transfer to a DOT approved container. Destroy by approved incineration or deposit with approved landfill. Must be in accordance with federal, state and local laws and regulations.</b>
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## 7. HANDLING & STORAGE INFORMATION

7.1	Work & Hygiene Practices: <b>Wash hands thoroughly after using this product and before eating, drinking, or smoking. Remove soiled clothing to prevent prolonged skin contact.</b>
7.2	Storage & Handling: <b>Store at temperatures between 59 °F and 95 °F (15 °C and 35 °C) in a dry, well-ventilated location. Keep away from heat, sparks, open flame, and other sources of ignition. Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Normal shelf-life: 2-3 years.</b>
7.3	Special Precautions: <b>Empty containers may contain product residues. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.</b>

## 8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1	Ventilation & Engineering Controls: <b>Use with adequate ventilation (e.g., open doors and windows, local exhaust ventilation). Ensure appropriate decontamination equipment is available (e.g., sink, safety shower, eye-wash station).</b>
8.2	Respiratory Protection: <b>None required, when used with adequate ventilation. If user operations generate an oil mist, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended mineral oil mist exposure limits.</b>
8.3	Eye Protection: <b>None required under normal conditions of use.</b>
8.4	Hand Protection: <b>None required under normal conditions of use. However, may cause skin irritation in some sensitive individuals. In such cases, wear rubber or impervious plastic gloves.</b>
8.5	Body Protection: <b>Use as necessary to prevent skin contact.</b>



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## 9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Density:	NA
9.2	Boiling Point:	> 260 °C (500 °F)
9.3	Melting Point:	> 232 °C (450 °F)
9.4	Evaporation Rate:	NA
9.5	Vapor Pressure:	NA
9.6	Molecular Weight:	NA
9.7	Appearance & Color:	Silver Paste
9.8	Odor Threshold:	Low odor when heated
9.9	Solubility:	Tin Insoluble, Ammonium Phosphate water soluble
9.10	Ph	NA
9.11	Viscosity:	NA
9.12	Other Information:	NA

## 10. STABILITY & REACTIVITY

10.1	Stability:	Stable under normal conditions of use (see section 7).
10.2	Hazardous Decomposition Products:	ND
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid:	Use or storage near open flames, sparks, high heat (>100 °F) or other heat sources, and proximity to incompatible substances and heavily trafficked areas.
10.5	Incompatible Substances:	Chlorine, Turpentine

## 11. TOXICOLOGICAL INFORMATION

11.1	Toxicity Data:	This product has not been tested on animals to obtain toxicological data. There are toxicology data for the components of this product, which are found in the scientific literature. This data has not been presented in this document.	
11.2	Acute Toxicity:	See section 2.5	
11.3	Chronic Toxicity:	See section 2.6	
11.4	Suspected Carcinogen:	This product is not a suspected carcinogen in humans.	
11.5	Reproductive Toxicity:	This product is not reported to produce reproductive toxicity in humans.	
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.	
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.	
	Teratogenicity:	This product is not reported to produce teratogenic effects in humans.	
	Reproductive Toxicity:	This product is not reported to produce reproductive effects in humans.	
11.6	Irritancy of Product:	See Section 2.3	
11.7	Biological Exposure Indices:	NE	
11.8	Physician Recommendations:	Treat symptomatically.	



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## 12. ECOLOGICAL INFORMATION

12.1	Environmental Stability: <b>This product will slowly volatilize from soil. Components of this product will slowly decompose into organic compounds.</b>
12.2	Effects on Plants & Animals: <b>There is no specific data available for this product.</b>
12.3	Effects on Aquatic Life: <b>This material should be kept out of sewage and drainage systems and all bodies of water. Releases of large volumes of this product are expected to be harmful or fatal to overexposed aquatic life.</b>

## 13. DISPOSAL CONSIDERATIONS


13.1	Waste Disposal: <b>Dispose of in accordance with federal, state or local regulations.</b>
13.2	Special Considerations: <b>NA</b>

## 14. TRANSPORTATION INFORMATION

The basic description (proper shipping name, hazard class & division, ID Number, packing group) is shown for each mode of transportation. Additional descriptive information may be required by 49 CFR, IATA/ICAO, IMDG and the CTDGR.

14.1	49 CFR (GND): <b>NOT REGULATED</b>	
14.2	IATA (AIR): <b>NOT REGULATED</b>	
14.3	IMDG (OCN): <b>NOT REGULATED</b>	
14.4	TDGR (Canadian GND): <b>NOT REGULATED</b>	
14.5	ADR/RID (EU): <b>NOT REGULATED</b>	
14.6	MEXICO (SCT): <b>NOT REGULATED</b>	

## 15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements: <b>This product does not contain any substances that are subject to SARA Section 313 reporting requirements.</b>	
15.2	SARA Threshold Planning Quantity: <b>NA</b>	
15.3	TSCA Inventory Status: <b>All chemical substances of this product are listed on the TSCA inventory or are otherwise exempt from inventory status.</b>	
15.4	CERCLA Reportable Quantity (RQ): <b>This product has no CERCLA Reportable Quantity. However, release into a waterway may require reporting to the National Response Center.</b>	
15.5	Other Federal Requirements: <b>NA</b>	
15.6	Other Canadian Regulations <b>This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. The components of this product are listed on the DSL/NDL. None of the components of this product are listed on the Priorities Substances List.</b>	
15.7	State Regulatory Information: <b>Components of this product are <u>not</u> listed on any of the following state criteria lists: California OSHA; California Proposition 65; Massachusetts Right to Know List; Pennsylvania Hazardous Substances List 34 323 Appendix A; Wisconsin Hazardous Substances List NR 605.09; Minnesota Hazardous Substances List, New Jersey Right to Know List; New York Right to Know List; Michigan Critical Substances List; and Florida Toxic Substances List.</b>	



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## 15. REGULATORY INFORMATION- continued

15.8	<p>67/548/EEC (European Union) Requirements:</p> <p>The primary components of this product are not listed in Annex I of EU Directive 67/548/EEC.</p> <p>(XI) Irritant</p> <p>R: 36/37/38 Irritating to eyes, respiratory system and skin.</p> <p>S: 2 Keep out of reach of children</p> <p>S: 3/7 Keep container closed and dry in a well ventilated space</p>	
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## 16. OTHER INFORMATION

16.1	Other Information:	NA
16.2	Terms & Definitions:	See last page of this MSDS.
16.3	Disclaimer:	<p>This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of ShipMate's &amp; CAIG Laboratories, Inc.'s knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.</p>
16.4	Prepared for:	<p>CAIG Laboratories, Inc. 12200 Thatcher Court Poway, CA 92064-6876 +1 (800) CAIG-123 (244-4123) phone +1 (858) 486-8398 fax <a href="http://www.caig.com/">http://www.caig.com/</a></p>
16.5	Prepared by:	<p>ShipMate, Inc. 18436 Hawthorne Blvd., Suite 201 Torrance, CA 90504 310-370-3600 phone 310-370-5700 fax <a href="http://www.shipmate.com/">http://www.shipmate.com/</a></p>



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## DEFINITION OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these that are commonly used include the following:

### GENERAL INFORMATION:

CAS No.	Chemical Abstract Service Number
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### EXPOSURE LIMITS IN AIR:

ACGIH	American Conference on Governmental Industrial Hygienists
TLV	Threshold Limit Value
OSHA	U.S. Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
IDLH	Immediately Dangerous to Life and Health

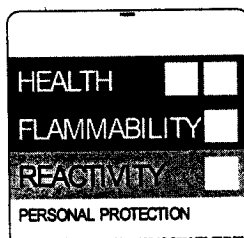
### FIRST AID MEASURES:

CPR	Cardiopulmonary resuscitation - method in which a person whose heart has stopped receives manual chest compressions and breathing to circulate blood and provide oxygen to the body.
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### HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: HMIS

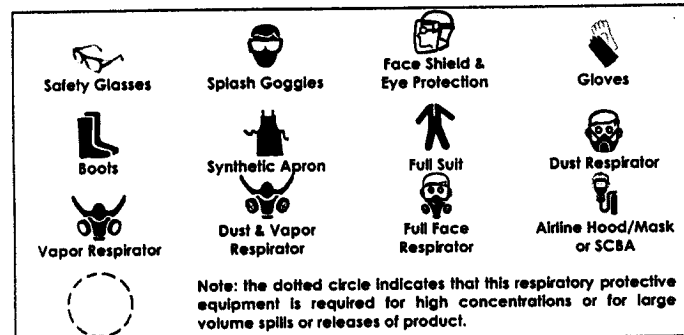
#### HEALTH, FLAMMABILITY & REACTIVITY RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard



#### PERSONAL PROTECTION RATINGS:

A		G	
B		H	
C		I	
D		J	
E		K	
F		X	Consult your supervisor or S.O.P. for special handling directions.



#### OTHER STANDARD ABBREVIATIONS:

NA	Not Available
NR	No Results
NE	Not Established
ND	Not Determined
ML	Maximum Limit
SCBA	Self-Contained Breathing Apparatus

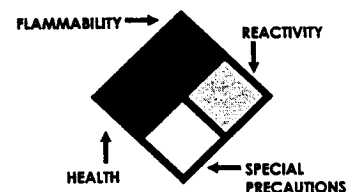
### NATIONAL FIRE PROTECTION ASSOCIATION: NFPA

#### FLAMMABILITY LIMITS IN AIR:

Autoignition Temperature	Minimum temperature required to initiate combustion in air with no other source of ignition
LEL	Lower Explosive Limit - lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source
UEL	Upper Explosive Limit - highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source

#### HAZARD RATINGS:

0	Minimal Hazard
1	Slight Hazard
2	Moderate Hazard
3	Severe Hazard
4	Extreme Hazard
ACD	Acidic
ALK	Alkaline
COR	Corrosive
-W	Use No Water
OX	Oxidizer



#### TOXICOLOGICAL INFORMATION:

LD <sub>50</sub>	Lethal Dose (solids & liquids) which kills 50% of the exposed animals
LC <sub>50</sub>	Lethal concentration (gases) which kills 50% of the exposed animal
ppm	Concentration expressed in parts of material per million parts
TD <sub>01</sub>	Lowest dose to cause a symptom
TCLo	Lowest concentration to cause a symptom
TD <sub>01</sub> , LD <sub>01</sub> , & LD <sub>50</sub> or TC, TC <sub>01</sub> , LC <sub>01</sub> , & LC <sub>50</sub>	Lowest dose (or concentration) to cause lethal or toxic effects
IARC	International Agency for Research on Cancer
NTP	National Toxicology Program
RTECS	Registry of Toxic Effects of Chemical Substances
BCF	Bioconcentration Factor
TLm	Median threshold limit
log Kow or log Koc	Coefficient of Oil/Water Distribution

#### REGULATORY INFORMATION:

WHMIS	Canadian Workplace Hazardous Material Information System
DOT	U.S. Department of Transportation
TC	Transport Canada
EPA	U.S. Environmental Protection Agency
DSL	Canadian Domestic Substance List
NDSL	Canadian Non-Domestic Substance List
PSL	Canadian Priority Substances List
TSCA	U.S. Toxic Substance Control Act
EU	European Union (European Union Directive 67/548/EEC)

#### EC INFORMATION:

C	E	F	N	O	T+	XI	Xn
Corrosive	Explosive	Flammable	Harmful	Oxidizing	Toxic	Irritant	Harmful