

# MATERIAL SAFETY DATA SHEET

<b>DATE ISSUED :</b>	11/11/2011
<b>MSDS REF. No :</b>	1320

## TT-P-28H Ty. I Hi-Heat Aluminum Coating

### 1. PRODUCT AND COMPANY INFORMATION

**PRODUCT NAME:** TT-P-28H Ty. I Hi-Heat Aluminum Coating  
**PRODUCT CODE:** 1320

#### MANUFACTURER INFORMATION

MACH-DYNAMICS  
494 Main Street  
Susquehanna, PA 18847  
**Phone:** (775) 278-9308  
**Fax:** (775) 599-4585  
**Contact :** Mark Gingerella

#### 24 HR. EMERGENCY TELEPHONE NUMBER

**(US Transportation):** +1 (800) 392-7701  
**(International Transportation):** +001 (800) 392-7701

### 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**PHYSICAL APPEARANCE :** Liquid

**IMMEDIATE CONCERNS :** DANGER! Flammable liquid and vapor. May cause eye, skin and respiratory tract irritation. May cause asphyxiation, or brain, lung or other organ injury if inhaled, swallowed or absorbed by the skin.

#### POTENTIAL HEALTH EFFECTS

**EYES :** Liquid is severely irritating to the eyes. High vapor concentrations are also irritating.

**SKIN :** Liquid is moderately irritating to the skin. Prolonged or repeated contact can result in drying of the skin which may result in skin irritation and dermatitis (rash). Liquid may be absorbed through the skin.

**INGESTION :** Ingestion may cause headache, dizziness, fatigue, and central nervous system depression along with gastrointestinal disturbances.

**INHALATION :** Vapors may be irritating to the nose, throat, and respiratory tract. Exposure to high vapor concentrations may cause central nervous system (CNS) depression. Aspiration of liquid may cause pneumonitis, pulmonary edema, and hemorrhaging.

**CHRONIC :** No chronic health concerns known.

**CARCINOGENICITY :** This material is not currently known to have carcinogenic properties.

**MUTAGENICITY :** This material is not know to have mutagenic effects on genetic material.

**IRRITANCY:** This material may cause irritation to the eyes, skin, and respiratory tract. Use correct PPE when handling this material.

**REPRODUCTIVE TOXICITY**

**REPRODUCTIVE EFFECTS** : This material is not known to cause any reproductive system damage.

**TERATOGENIC EFFECTS** : This material is not known to contain any teratogenic substances.

**3. COMPOSITION/CHEMICAL INFORMATION**

Chemical Name	CAS Number	Weight %
Polymer Base (Resin)	NONE ESTB.	25% to 50%
Acetone	67-64-1	20% to 25%
Aluminum	7429-90-5	20% to 25%
*Synthetic Isoparaffinic Hydrocarbon	64742-48-9	5% to 10%
Aliphatic Hydrocarbons (Stoddard Type)	8052-41-3	1% to 5%

\* Toxic chemical subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

**4. FIRST AID MEASURES**

**EYES** : Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Seek medical aid if irritation persists.

**SKIN** : Flush skin with soap and water while removing contaminated clothing. If irritation occurs, seek immediate medical attention. Do not reuse clothing or shoes until thoroughly cleaned.

**INGESTION** : Do not induce vomiting, and seek immediate medical attention. Do not attempt to give any liquids if victim is unconscious.

**INHALATION** : Immediately remove victim to fresh air. If victim is not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**NOTES TO PHYSICIAN:** If the victim is a child, give no more than 1 glass of water and 15cc (1 tablespoon) syrup of ipecac. If symptoms such as loss of gag reflex, convulsions, or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

**5. FIRE FIGHTING MEASURES**

**FLASH POINT AND METHOD** : 83 degrees Fahrenheit Tagliabue Closed Cup (TCC)

**FLAMMABLE LIMITS** : 1.7% to 12.8%

**AUTOIGNITION TEMPERATURE** : No data available.

**GENERAL HAZARD** : Carbon monoxide and unidentified organic compounds may be formed during combustion.

**EXTINGUISHING MEDIA** : Use water fog, "alcohol" foam, dry chemical, or CO<sub>2</sub>.

**FIRE FIGHTING PROCEDURES** : WARNING! Flammable Liquid. Clear the fire area of unprotected personnel. Do not enter confined fire space without full bunker gear; including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water. If water is used, fog nozzles are preferred

**EXPLOSION HAZARD** : When heated above the flash point, this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

## 6. ACCIDENTAL RELEASE MEASURES

**GENERAL PROCEDURES** : WARNING. Flammable. Ventilate area of leak or spill for at least 24 hours or until it has been declared safe. Remove all sources of ignition. Stop the leak if there is no risk involved. Clean-up personnel require protective clothing and respiratory protection from vapors. Absorb liquid with inert material. Only specially trained or qualified personnel should handle the emergency.

### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL** : Keep material out of storm sewers and ditches which lead to waterways.

**LAND SPILL** : Contact applicable authorities and determine applicable regulations based on MSDS information.

**AIR RELEASE** : Contact applicable authorities and determine applicable regulations based on MSDS information.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES** : Keep away from heat, sparks, and flame. Surfaces that are hot may ignite liquid even in the absence of sparks or flame. Extinguish pilot lights, cigarettes, and turn off all other sources of ignition prior to use, and until all vapors are gone. Keep containers tightly closed and upright to prevent leakage.

**COMMENTS** : KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE GUIDELINES :

#### OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

CHEMICAL NAME	EXPOSURE LIMITS				
		OSHA PEL		ACGIH TLV	
		ppm	mg/m <sub>3</sub>	ppm	mg/m <sub>3</sub>
Acetone	TWA	1000	2400	250	590

	STEL	NL	NL	NL	NL
Aluminum	TWA	N/A	15	N/A	10
	STEL	N/A	NL	N/A	NL
*Synthetic Isoparaffinic Hydrocarbon	TWA	500	2900	350	1800
	STEL	NL	NL	NL	NL
Aliphatic Hydrocarbons (Stoddard Type)	TWA	500	2000	350	1800
	STEL	NL	NL	NL	NL

**OSHA TABLE COMMENTS:**

NL = Not Listed

Ca = "WARNING: THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM."

**ENGINEERING CONTROLS:** Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

**SKIN:** Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

**RESPIRATORY:** If exposure may or does exceed occupational exposure limits (Section 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134, use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

**HYGIENIC WORK PRACTICES:** Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

**OTHER USE PRECAUTIONS:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**COMMENTS:** May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventilation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

**9. PHYSICAL AND CHEMICAL PROPERTIES****PHYSICAL STATE :** Liquid**ODOR :** Typical paint odor.**pH :** Not Applicable**BOILING POINT :** 147 Degrees Fahrenheit to 240 Degrees Fahrenheit**FREEZING POINT :** No data available**VOLATILE ORGANIC COMPOUNDS:** 184 G/L (1.54 Lbs/Gal)  
(VOC Theoretical – As Packaged)**SOLUBILITY IN WATER :** Soluble in most organic solvents. Not soluble in water.**EVAPORATION RATE :** No data available**DENSITY :** 9.77 (Lbs/Gal)

**10. STABILITY AND REACTIVITY**

**STABLE :** Yes

**HAZARDOUS POLYMERIZATION :** Will not occur

**CONDITIONS TO AVOID :** Avoid heat, sparks, flame and contact with strong oxidizing agents. Prevent vapor accumulation.

**POLYMERIZATION :** Avoid heat, flame, and other sources of ignition.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

**INCOMPATIBLE MATERIALS :** Strong oxidizers.

**11. TOXICOLOGICAL INFORMATION**

**GENERAL COMMENTS:** None identified.

**12. ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION:** Keep out of waterways.

**13. DISPOSAL INFORMATION**

**DISPOSAL METHOD:** This material is a US EPA defined ignitable hazardous waste. The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

**EMPTY CONTAINER:** KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

**RCRA/EPA WASTE INFORMATION:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**14. TRANSPORT INFORMATION****DOT (DEPARTMENT OF TRANSPORTATION)**

**PROPER SHIPPING NAME :** UN1263, Paint, Class 3, PG III

(UN#, Proper Shipping Name, Class, Packing Group)

\*\*\* MACH-DYNAMICS verifies that the material was supplied and shipped in the proper packages in accordance with DOT and federal regulations that are applicable to the mode of transportation selected. The shipper must verify that the packaging supplied is acceptable to be re-shipped in per the federal regulations applicable to the mode of transportation for re-shipment. Regulations may change depending on mode of transportation selected.\*\*\*

**15. REGULATORY INFORMATION**

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

**311/312 HAZARD CATEGORIES:** This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

**FIRE :** Yes                      **PRESSURE GENERATING** : No

**REACTIVITY :** No      **ACUTE :** Yes      **CHRONIC :** Yes

**313 REPORTABLE INGREDIENTS:** To the best of our knowledge, this product is not listed as a toxic chemical.

**302/304 EMERGENCY PLANNING**

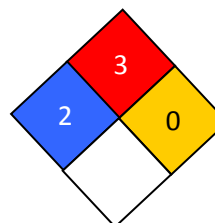
**EMERGENCY PLAN:** To the best of our knowledge, this material is not listed as an extremely hazardous substance.

**16. OTHER INFORMATION**

**APPROVED BY :** Mark Gingerella

**TITLE :** President / QC Manager

**NFPA CODES**



<b>HMIS RATING</b>	
Health :	2
Flammability :	3
Reactivity :	0
Personal Protection :	G

**MANUFACTURER DISCLAIMER :** The information contained herein is based on the data available to us and is believed to be accurate. However, MACH-DYNAMICS makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. MACH-DYNAMICS assumes no responsibility for injuries from the use of the product described herein.

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## TT-P-28H Ty. I Hi-Heat Aluminum Coating

**MATERIAL SAFETY DATA SHEET*****Unfilled Omni-Pak® Cans Used With OMNI-FILL® Package OMNIFILL/ ISD***

						<i>Enamel Blend</i>			<i>Lacquer, Acrylic, Vinyl</i>		
----SECTION II----		ACGIH	OSHA	Vapor	25106	25112	25116		25206	25212	25216
CAS No.	HAZARDOUS INGREDIENT (percent by weight)	TLV <STEL>	PEL <STEL>	Units Pressure (mm Hg)	NMC EN-6	NMC EN-12	NMC EN-16		LAV-6	LAV-12	LAV-16
74-98-6	Propane (propellant)		1000	PPM	760.0	22	22	22	22	22	22
75-28-5	2-Methylpropane(propellant)	Not Established			760.0	22	22	22			
67-64-1	§ Acetone	750 <1000>	750 <1000>	PPM	180.0	50	50	50	73	73	73
763-69-9	Ethyl 3-Ethoxypropionate	Not Established			1.1	7	7	7	6	6	6
NFA Code 30B Level						3	3	3	3	3	3
VOC as a percent by weight, BAAQMD Rule 49						100	100	100	100	100	100
HMIS® Rating (Health - Flammability - Reactivity)						2-4-0	2-4-0	2-4-0	2-4-0	2-4-0	2-4-0

§ Ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

**NOTE:** *This MSDS covers unfilled OMNI-FILL® cans only. Users of filled cans must consult both this MSDS and the MSDS for the material filled into the can.*

## *Unfilled Omni-Pak® Cans Used With OMNI-FILL® Package OMNIFILL/ ISD*

### Section III – PHYSICAL DATA

<i>PRODUCT WEIGHT</i> - N.A.	<i>EVAPORATION RATE</i> - Faster than Ether
<i>SPECIFIC GRAVITY</i> - N.A.	<i>VAPOR DENSITY</i> - Heavier than Air
<i>BOILING RANGE</i> - <0-342 °F	<i>MELTING POINT</i> - N.A.
<i>VOLATILE VOLUME</i> - 100 %	<i>SOLUBILITY IN WATER</i> - N.A.

### Section IV – FIRE AND EXPLOSION HAZARD DATA

*FLAMMABILITY CLASSIFICATION FLASH POINT* <0 F PMCC *LEL* 1.0 *UEL* 12.8

RED LABEL – Extremely flammable, Flash below 21 °F

#### *EXTINGUISHING MEDIA*

Carbon Dioxide, Dry Chemical, Foam

#### *UNUSUAL FIRE AND EXPLOSION HAZARDS*

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

#### *SPECIAL FIRE FIGHTING PROCEDURES*

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

### Section V – HEALTH HAZARD DATA

#### *ROUTES OF EXPOSURE*

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

#### *ACUTE Health Hazards*

#### *EFFECTS OF OVEREXPOSURE*

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

#### *SIGNS AND SYMPTOMS OF OVEREXPOSURE*

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mist. Redness and itching or burning sensation may indicate eye or excessive skin exposure.

#### *MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE*

None generally recognized.

#### *EMERGENCY AND FIRST AID PROCEDURES*

If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

If SWALLOWED: Never give anything by mouth to an unconscious person. DO NOT INDUCE VOMITING. Give several glasses of water. Seek medical attention.

#### *CHRONIC Health Hazards*

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver and urinary systems.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

### Section IV – REACTIVITY DATA

*STABILITY* - Stable

#### *INCOMPATIBILITY*

None known

#### *HAZARDOUS DECOMPOSITION PRODUCTS*

By fire: Carbon Dioxide, Carbon Monoxide

*HAZARDOUS POLYMERIZATION* - Will Not Occur

### Section VII – SPILL OR LEAK PROCEDURES

#### *STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED*

Remove all sources of ignition. Ventilate and remove with inert absorbent.

#### *WASTE DISPOSAL METHOD*

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

### Section VIII – PROTECTION INFORMATION

#### *PRECAUTIONS TO BE TAKEN IN USE*

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

#### *VENTILATION*

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

#### *RESPIRATORY PROTECTION*

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

#### *PROTECTIVE GLOVES*

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

#### *EYE PROTECTION*

Wear safety spectacles with unperforated sideshields.

### Section IX – PRECAUTIONS

#### *DOL STORAGE CATEGORY* - 1A

#### *PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING*

Contents are EXTREMELY FLAMMABLE. Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated – Do not smoke – Extinguish all flames, pilot lights, and heaters – Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120 °F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

#### *OTHER PRECAUTIONS*

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

This Material Safety Data Sheet conforms to the Hazard Communication standard, 29 CFR 1910.1200(g)(4), for similar complex mixtures.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.