U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
Tapmatic Corporation	714/261-9302
ADDRESS (Number, Street, City, State, and ZIP Code) 1851 Kettering Street - Irvine, CA 92714	
CHEMICAL NAME AND SYNONYMS N.A.	TRADE NAME AND SYNONYMS Tapmatic Cutting Fluid #2
CHEMICAL FAMILY N.A.	FORMULA

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS CAS #8008-20-6	70	500 PPM	FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Tapmatic certifies that all requirements of the Toxic Substance Control Act as amended have been complied with. All components of this formulation are listed in the TOSCA Inventory of Chemical Substance.		

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	340-560	SPECIFIC GRAVITY (H_2O=1)	.87
VAPOR PRESSURE (mm Hg.)	<5	PERCENT, VOLATILE BY VOLUME (%)	72
VAPOR DENSITY (AIR=1)	5.7	EVAPORATION RATE (But. ac. =1)	0.1
SOLUBILITY IN WATER	Insoluble	Viscosity [centistokes]	1300
APPEARANCE AND ODOR	Pale yellow, faint wintergreen scent.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
Closed cup 140°F. Open cup 166°F.		0.7%	5%

EXTINGUISHING MEDIA
Foam, Carbon Dioxide, Dry Chemical

SPECIAL FIRE FIGHTING PROCEDURES
As with solvent fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS
None

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
Not established. 500 PPM recommended.

EFFECTS OF OVEREXPOSURE
Slightly irritating to eyes and skin.

EMERGENCY AND FIRST AID PROCEDURES
Skin - wash with soap and water.
Eyes - rinse with water for 15 minutes.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Heat, flame, water.

INCOMPATABILITY (Materials to avoid)
Oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS
Carbon Monoxide.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Soak up with sawdust or soil absorbent. Extinguish open flames.

WASTE DISPOSAL METHOD
Reclaimer or chemical dump.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)

VENTILATION	LOCAL EXHAUST Provide adequate ventilation.	SPECIAL
	MECHANICAL (General)	OTHER

PROTECTIVE GLOVES
Normally not needed.

EYE PROTECTION
Safety glasses w/side shields.

OTHER PROTECTIVE EQUIPMENT

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Do not store at elevated temperatures. Keep away from flames or sparks.

OTHER PRECAUTIONS
Autoignition temperature is 444°F.

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SECTION I

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Tapmatic Corporation	714/261-9302
ADDRESS (Number, Street, City, State, and ZIP Code) 1851 Kettering Street - Irvine, CA 92714	
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS Tapmaric Cutting Fluid #1
CHEMICAL FAMILY Chlorinated Hydrocarbon	FORMULA

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS CAS #71-55-6	85	350 PPM	FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Tapmatic certifies that all requirements of the Toxic Substance Control Act as amended have been complied with. All components of this formulation are listed in the TOSCA Inventory of Chemical Substance.		

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	165°	SPECIFIC GRAVITY (H_2O=1)	1.32
VAPOR PRESSURE (mm Hg.)	150	PERCENT, VOLATILE BY VOLUME (%) Approx.	90%
VAPOR DENSITY (AIR=1)	4.5	EVAPORATION RATE (__Ether__ =1)	.35
SOLUBILITY IN WATER	Insoluble		

APPEARANCE AND ODOR Light brown liquid, wintergreen scent.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used) None	FLAMMABLE LIMITS	Lel	Uel
EXTINGUISHING MEDIA			
SPECIAL FIRE FIGHTING PROCEDURES Product is not flammable.			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
350 PPM

EFFECTS OF OVEREXPOSURE
Anesthetic effects may occur in concentrations approaching 1000 PPM.

EMERGENCY AND FIRST AID PROCEDURES
Inhalation; remove to fresh air
Eyes and/or Skin; flush with water.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Open flames, welding arcs

INCOMPATABILITY (Materials to avoid)

HAZARDOUS DECOMPOSITION PRODUCTS
Hydrogen Chloride, Phosgene, Chlorine

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Small leaks; wipe up immediately.
Large spills; evacuate area, contain liquid, transfer to closed metal containers. Keep out of water supply.

WASTE DISPOSAL METHOD
Send to reclaimer or chemical dump.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)
Not required.

VENTILATION	LOCAL EXHAUST Maintain TLV	SPECIAL
	MECHANICAL (General) Provide good ventilation	OTHER

PROTECTIVE GLOVES Normally not needed.	EYE PROTECTION Safety glasses w/ side shields.

OTHER PROTECTIVE EQUIPMENT

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Handle with reasonable care.
Store in a cool dry place.

OTHER PRECAUTIONS
Use with adequate ventilation.