

**MATERIAL SAFETY DATA SHEET**  
**TRIM® MicroSol® 685**

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**Product name** TRIM® MicroSol® 685  
**Material type** High Lubricity Semisynthetic Metalworking Fluid  
**Classification/synonym(s)** Microemulsion/None  
**Product use** Coolant and lubricant in metal removal processes  
**Manufacturer address** MASTER CHEMICAL CORPORATION  
501 West Boundary  
Perrysburg, OH 43551-1200  
**Emergency telephone** 419-874-7902 **Fax number** 419-874-0684

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>COMPONENT</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>	<b>OTHER LIMITS RECOM.</b>	<b>CAS #</b>	<b>%RANGE</b>
Severely hydrotreated petroleum oil	5mg/m <sup>3</sup> (mist)	5mg/m <sup>3</sup> (mist)	none	64742-52-5	25-35
Monoethanolamine	3ppm	3ppm	none	141-43-5	1-10

The exact chemical identities and percentages of the raw materials used in TRIM® MicroSol® 685 are trade secrets. This information is being withheld as provided for in the Occupational Safety and Health Administration's Hazard Communication Rule (29 CFR 1910.1200).

**3. HAZARDS IDENTIFICATION**

**Emergency overview** Amber liquid  
No immediate hazard  
Fire may produce oxides of carbon and nitrogen

**POTENTIAL HEALTH EFFECTS**

<b>Acute effects of overexposure expected to be</b>	Eye contact	Transient irritation
	Skin contact	Possible defatting, nonirritant as working solution, nonsensitizer
	Inhalation	Nontoxic
	Ingestion	Nontoxic

**Chronic effects of  
overexposure** None currently known

**Product/Ingredients listed as  
carcinogen or potential carcinogen?** **NTP Annual Report** No **IARC Monographs** No  
**OSHA** No

**Signs and symptoms of exposure** None

**Medical conditions generally aggravated by exposure**                      None known

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

<b>Emergency and first aid procedures</b>	Eyes	Flush immediately with cool, clean water for at least 15 minutes
	Skin	Wash with mild soap and warm water
	Inhalation	Move to fresh air
	Ingestion	If large quantities are ingested, contact a physician

In every case get medical attention as required

#### **5. FIRE FIGHTING MEASURES**

<b>Flash point (test method)</b>	> 204°F (> 96°C) (COC)	<b>Flammable limits</b> Not determined
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<b>Extinguishing media</b>	As appropriate for the surrounding fire: water (flood with water), dry chemical, CO <sub>2</sub> , or "alcohol" foam
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<b>Special fire fighting procedures</b>	None	<b>Unusual fire and explosion hazards</b> None
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#### **6. ACCIDENTAL RELEASE MEASURES**

<b>Steps to be taken if material is released or spilled</b>	Mop up or use dry absorbent
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#### **7. HANDLING AND STORAGE**

<b>Precautions to be taken in handling and storing</b>	Avoid contact with eyes. Avoid prolonged or repeated skin contact with the concentrate. Wash thoroughly after handling. Do not swallow. Refer to container labels.
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<b>Other precautions</b>	This product contains amine. Do not add nitrite or other nitrosating agents to this product due to the potential for nitrosamine formation.
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#### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Respiratory protection (Specify type)</b>	None
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<b>Ventilation</b>	Local exhaust	Not normally required
	Mechanical (General)	General room ventilation should be sufficient
	Special	None
	Other	None

<b>Protective gloves</b>	None necessary with working solution
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<b>Other protective equipment</b>	None
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<b>Eye protection</b>	Safety glasses
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**Exposure limits**

None established by ACGIH or OSHA for product as whole  
Refer to Section 2

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Amber liquid
<b>Odor</b>	Mild amine
<b>pH of concentrate</b>	9.5 – 10.5
<b>Typical operating pH</b>	9.5 – 10.0
<b>Boiling point (ASTM D86)</b>	209°F (98°C)
<b>Freezing point</b>	-1°F (-18°C)
<b>Solubility in water</b>	Soluble
<b>Specific gravity (H<sub>2</sub>O=1)</b>	0.999
<b>V.O.C. Content (EPA Method 24)</b>	2.35 lbs/gal
<b>Evaporation rate (butyl acetate=1)</b>	0.018

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable	<b>Conditions to avoid</b>	None
<b>Incompatibility (materials to avoid)</b>	Strong acids and oxidizers		
<b>Hazardous combustion or decomposition products</b>	Thermal decomposition (fire) may produce oxides of carbon and nitrogen		
<b>Hazardous polymerization</b>	Will not occur	<b>Conditions to avoid</b>	None

**11. TOXICOLOGICAL INFORMATION**

<b>Study</b>	<b>Test Animal</b>	<b>Concentrate</b>	<b>Results</b>	<b>10% Solution</b>
Acute inhalation toxicity	Rat	---		nontoxic LC <sub>50</sub> > 202 mg/l
Acute oral toxicity	Rat	nontoxic LD <sub>50</sub> > 5000mg/kg		nontoxic
Acute dermal toxicity	Rabbit	nontoxic LD <sub>50</sub> > 2000mg/kg		nontoxic
Primary skin irritation	Rabbit	nonirritant PDI index = 3.29		nonirritant PDI index = 0.63
Primary eye irritation	Rabbit	irritant		nonirritant
Repeated insult patch	Human volunteers	---		nonirritant nonsensitizer

## 12. ECOLOGICAL INFORMATION

No data available

## 13. DISPOSAL CONSIDERATIONS

**Waste disposal method** Must comply with local, state, and federal regulations. If pre-treatment is needed, chemical treatment or ultrafiltration may be used. Contact Master Chemical Tech Line (1-800-537-3365) for assistance.

## 14. TRANSPORT INFORMATION

**Department of Transportation** **DOT Hazard Class:** None  
TRIM<sup>®</sup> MicroSol<sup>®</sup> 685 is not classified as a hazardous material by DOT.

## 15. REGULATORY INFORMATION

**Resource Conservation and Recovery Act** **EPA Hazardous Waste Number(s):** None  
TRIM<sup>®</sup> MicroSol<sup>®</sup> 685 is not classified as a hazardous waste by EPA.

**Toxic Substances Control Act** All TRIM<sup>®</sup> MicroSol<sup>®</sup> 685 ingredients are listed on the TSCA Inventory of Chemical Substances.

**Superfund Amendments and Reauthorization Act of 1986** TRIM<sup>®</sup> MicroSol<sup>®</sup> 685 does not contain any Section 302/304 Extremely Hazardous Substances or Section 313 Toxic Chemicals.

## 16. OTHER INFORMATION

	<b>HMIS Hazard Index</b>	<b>Concentrate</b>	<b>NFPA RATING</b>
(Health)	H = 1		H = 1
(Fire)	F = 0		F = 0
(Reactivity)	R = 0		R = 0
(Personal Protection)	PP = A		Special hazards = none
		<b>Typical Working Solution</b>	
	H = 1		H = 1
	F = 0		F = 0
	R = 0		R = 0
	PP = A		Special hazards = none

**Key** 0 = minimal 1 = slight 2 = moderate 3 = serious 4 = severe  
This information is intended solely for the use of individuals trained in the particular system.

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