

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

COMPONENT	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOM.	CAS #	%RANGE
Severely hydrotreated petroleum oil	5mg/m ³ (mist)	5mg/m ³ (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

Acute effects of overexposure expected to be	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

Emergency and first aid procedures	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

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

Steps to be taken if material is released or spilled	Mop up or use dry absorbent
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7. HANDLING AND STORAGE

Precautions to be taken in handling and storing	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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Other precautions	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

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

Protective gloves	None necessary with working solution
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Other protective equipment	None
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Eye protection	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

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

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Study	Test Animal	Concentrate	Results	10% Solution
Acute inhalation toxicity	Rat	---		nontoxic LC ₅₀ > 202 mg/l
Acute oral toxicity	Rat	nontoxic LD ₅₀ > 5000mg/kg		nontoxic
Acute dermal toxicity	Rabbit	nontoxic LD ₅₀ > 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® MicroSol® 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® MicroSol® 685 is not classified as a hazardous waste by EPA.

Toxic Substances Control Act All TRIM® MicroSol® 685 ingredients are listed on the TSCA Inventory of Chemical Substances.

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

16. OTHER INFORMATION

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