



SAFETY DATA SHEET

1. Identification

Product name TRIM® MicroSol® 465
Other means of identification None.
Recommended use Metal Working Fluids.
Recommended restrictions No other uses are advised. Applicable for industrial settings only.
Manufacturer/Importer/Supplier/Distributor information
Manufacturer
Company Name Master Fluid Solutions
Address 501 West Boundary
Perrysburg, Ohio 43551-1200
United States
Telephone 419-874-7902
Website www.masterfluidsolutions.com
E-mail info@masterfluids.com
Emergency phone number CHEMTREC 1-800-424-9300

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2
Environmental hazards Not classified.
OSHA defined hazards Not classified.
Label elements



Signal word Warning
Hazard statement Causes skin irritation. Causes serious eye irritation.
Precautionary statement
Prevention Wash hands thoroughly after handling. Wear eye protection/face protection. Wear protective gloves.
Response If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
Storage Store away from incompatible materials.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Distillates (petroleum), Hydrotreated Heavy Naphthenic		64742-52-5	10 - < 20
TRADE SECRET		Proprietary	3 - < 5

Chemical name	Common name and synonyms	CAS number	%
Monoethanolamine		141-43-5	1 - < 3
TRADE SECRET		Proprietary	1 - < 3
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Other components below reportable levels			60 - < 70

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air.
Skin contact	Wash affected area with mild soap and water.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center.
Most important symptoms/effects, acute and delayed	None known.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Get medical attention, if needed.

5. Fire-fighting measures

Suitable extinguishing media	Dry chemical, CO2, water spray or alcohol resistant foam. Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards arising from the chemical	No unusual fire or explosion hazards noted.
Special protective equipment and precautions for firefighters	Wear suitable protective equipment. Use standard firefighting procedures and consider the hazards of other involved materials.
Fire fighting equipment/instructions	Containers should be cooled with water to prevent vapor pressure build up.
General fire hazards	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. Use personal protective equipment as required.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material. Clean up in accordance with all applicable regulations.
Environmental precautions	Prevent entry into waterways, sewer, basements or confined areas.

7. Handling and storage

Precautions for safe handling	Do not taste or swallow. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Store in a closed container. The product is stable and non-reactive under normal conditions of use, storage and transport. Store in a dry place.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	PEL	5 mg/m3	Mist.

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Monoethanolamine (CAS 141-43-5)	PEL	6 mg/m3	
		3 ppm	

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m3	Inhalable fraction.
Monoethanolamine (CAS 141-43-5)	STEL	6 ppm	
	TWA	3 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value	Form
Distillates (petroleum), Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	STEL	10 mg/m3	Mist.
Monoethanolamine (CAS 141-43-5)	STEL	15 mg/m3	
		6 ppm	
	TWA	8 mg/m3 3 ppm	

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Safety glasses.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties**Physical state**

Liquid.

Color

Light yellow to amber

Odor

Mild

Odor threshold

Not available.

pH

9.9 - 10.9

Melting point/freezing point

25.16 °F (-3.8 °C)

Initial boiling point and boiling range

218.3 °F (103.5 °C)

Flash point

>212.0 °F (>100.0 °C)

Evaporation rate

1 BuAc

Flammability (solid, gas)

Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Soluble

**Partition coefficient
(n-octanol/water)** Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Flash point class ASTM D93-08

Kinematic viscosity 44.7 cSt

**Kinematic viscosity
temperature** 104 °F (40 °C)

pH in aqueous solution 8.9 - 10.4

Specific gravity 0.966 - 1.006

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Stable at normal conditions.

**Possibility of hazardous
reactions** Hazardous polymerization does not occur.

Conditions to avoid Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines.

Incompatible materials Strong acids. Powerful oxidizers.

**Hazardous decomposition
products** To avoid thermal decomposition, do not overheat.

11. Toxicological information**Information on likely routes of exposure**

Inhalation No adverse effects due to inhalation are expected.

Skin contact May be irritating to the skin.

Eye contact May be irritating to eyes.

Ingestion Expected to be a low ingestion hazard.

**Symptoms related to the
physical, chemical and
toxicological characteristics** May be irritating to the skin. May be irritating to eyes.

Information on toxicological effects

Acute toxicity Not classified.

Skin corrosion/irritation May be irritating to the skin.

**Serious eye damage/eye
irritation** May be irritating to eyes.

Respiratory or skin sensitization

Respiratory sensitization Not classified.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not classified.
Chronic effects	None known.

12. Ecological information

Ecotoxicity	Not available.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Follow precautions for safe handling described in this safety data sheet.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

US state regulations

California Proposition 65

For more information go to www.P65Warnings.ca.gov. California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 12-18-2023

Version # 01

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