

Issue Date: 01-Jan-2013

Revision Date: 01-Mar-2024

Version 2

1. IDENTIFICATION

Product identifier

Product Name MICCROREDUCER[®]

Other means of identification

SDS # TD-010-OSHA

UN/ID No UN1263

Recommended use of the chemical and restrictions on use

Recommended Use Plating.

Details of the supplier of the safety data sheet

Supplier Address

Tolber Chemical Division
 220 West 5th Street
 Hope, AR 71801

Emergency telephone number

Company Phone Number 870-777-3251
Emergency Telephone INFOTRAC 1-352-323-3500 (International)
 1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Clear liquid

Physical state Liquid

Odor Ketone

Classification

Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 2

Signal Word

Danger

Hazard statements

Causes serious eye irritation
 Suspected of causing cancer
 May cause respiratory irritation. May cause drowsiness or dizziness
 Highly flammable liquid and vapor



Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Wear eye/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a poison center or doctor/physician
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 IN CASE OF FIRE: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Methyl ethyl ketone	78-93-3	98
Methylisobutyl ketone	108-10-1	1-2

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice

If exposed or concerned: Get medical advice/attention.

Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.

Skin Contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
Ingestion	Do NOT induce vomiting. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	Inhalation may cause drowsiness or dizziness. Nausea. Headache. Fatigue and weakness. Vapors may irritate eye; Liquid and mist may severely irritate or damage the eye. Skin contact may result in irritation, defatting or dermatitis. Prolonged or repeated exposure may cause skin to become dry or cracked. Ingestion may cause irritation, nausea, vomiting.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**Carbon dioxide (CO₂). Dry chemical. Foam.**Unsuitable Extinguishing Media** Not determined.**Specific Hazards Arising from the Chemical**

Highly flammable liquid and vapor.

Hazardous combustion products Carbon oxides.**Explosion Data****Sensitivity to Static Discharge** Take precautionary measures against static discharge.**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal Precautions** Use personal protection recommended in Section 8. Remove all sources of ignition.**Environmental precautions****Environmental precautions** See Section 12 for additional Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.**Methods and material for containment and cleaning up****Methods for Containment** Prevent further leakage or spillage if safe to do so.**Methods for Clean-Up** Soak up with inert absorbent material. Place in appropriate containers for disposal. Dispose of all contaminated trash in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling

Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Ground/bond container and receiving equipment. Use explosion proof equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Use personal protection recommended in Section 8. Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a cool, well-ventilated place. Store locked up.

Incompatible Materials

Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl ethyl ketone 78-93-3	STEL: 300 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 590 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m ³ (vacated) STEL: 300 ppm (vacated) STEL: 885 mg/m ³	IDLH: 3000 ppm TWA: 200 ppm TWA: 590 mg/m ³ STEL: 300 ppm STEL: 885 mg/m ³
Methylisobutyl ketone 108-10-1	STEL: 75 ppm TWA: 20 ppm	TWA: 100 ppm TWA: 410 mg/m ³ (vacated) TWA: 50 ppm (vacated) TWA: 205 mg/m ³ (vacated) STEL: 75 ppm (vacated) STEL: 300 mg/m ³	IDLH: 500 ppm TWA: 50 ppm TWA: 205 mg/m ³ STEL: 75 ppm STEL: 300 mg/m ³

Appropriate engineering controls

Engineering Controls

Apply technical measures to comply with the occupational exposure limits.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Splash proof chemical safety goggles.

Skin and Body Protection

Chemical resistant, impermeable gloves. Suitable protective clothing. Long sleeve shirt and long pants. Protective shoes or boots.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Ketone
Appearance	Clear liquid	Odor Threshold	Not determined
Color	Colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	
Melting point / freezing point	No data available	
Initial boiling point and boiling range	80°C / 176°F	
Flash point	-7°C / 20°F	Tag Closed Cup
Evaporation Rate	3.6	
Flammability (Solid, Gas)	Not applicable	
Flammability Limit in Air		
Upper flammability or explosive limits	10%	
Lower flammability or explosive limits	2%	
Vapor Pressure	Not determined	
Vapor Density	2.5	(air = 1)
Relative Density	Not determined	
Water Solubility	Insoluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Autoignition temperature	No data available	
Hyphen	Not determined	
Kinematic viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Avoid contact. Keep away from heat, sparks and open flame.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Thermal decomposition may produce oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Causes serious eye irritation.
Skin Contact	Repeated exposure may cause skin dryness or cracking.
Inhalation	May cause drowsiness or dizziness.
Ingestion	Do not taste or swallow.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methyl ethyl ketone 78-93-3	= 2483 mg/kg (Rat)	= 5000 mg/kg (Rabbit)	= 11700 ppm (Rat) 4 h
Methylisobutyl ketone 108-10-1	= 2080 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	2000 - 4000 ppm (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Skin sensitization irritation, defatting, dermatitis possible. Extended exposure may cause respiratory sensitization/dizziness; as well as nausea and shortness of breath.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical name	ACGIH	IARC	NTP	OSHA
Methylisobutyl ketone 108-10-1	A3	Group 2B		X

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

Oral LD50 2,728.00 mg/kg
Dermal LD50 6,519.00 mg/kg
ATEmix (inhalation-dust/mist) 150.00 mg/l
ATEmix (inhalation-vapor) 820.00 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Component Information

Chemical name	Algae/aquatic plants	Fish	Crustacea
Methyl ethyl ketone 78-93-3		LC50: 3130 - 3320mg/L (96h, Pimephales promelas)	EC50: >520mg/L (48h, Daphnia magna) EC50: =5091mg/L (48h, Daphnia magna) EC50: 4025 - 6440mg/L (48h, Daphnia magna)
Methylisobutyl ketone 108-10-1	EC50: =400mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 496 - 514mg/L (96h, Pimephales promelas)	EC50: =170mg/L (48h, Daphnia magna)

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

Chemical name	Partition coefficient
Methyl ethyl ketone 78-93-3	0.3
Methylisobutyl ketone 108-10-1	1.9

Other adverse effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

- Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.
- Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

US EPA Waste Number

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl ethyl ketone 78-93-3	U159	Included in waste streams: F005, F039	200.0 mg/L regulatory level	U159
Methylisobutyl ketone 108-10-1		Included in waste stream: F039		U161

California Hazardous Waste Status

Chemical name	California Hazardous Waste Status
Methyl ethyl ketone 78-93-3	Toxic mixture of acetone, methyl acetate, and methyl alcohol Ignitable mixture of acetone, methyl acetate, and methyl alcohol

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

- UN/ID No** UN1263
- Proper Shipping Name** Paint Related Material
- Transport hazard class(es)** 3
- Packing Group** II

IATA

- UN number or ID number** UN1263
- Proper Shipping Name** Paint Related Material
- Transport hazard class(es)** 3
- Packing group** II

IMDG

- UN number or ID number** UN1263
- Proper Shipping Name** Paint Related Material
- Transport hazard class(es)** 3
- Packing Group** II
- Marine Pollutant** This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Methyl ethyl ketone	X	ACTIVE	X	X	X	X	X	X	X
Methylisobutyl ketone	X	ACTIVE	X	X	X	X	X	X	X

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List*
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*
- ENCS - Japan Existing and New Chemical Substances*
- IECSC - China Inventory of Existing Chemical Substances*
- KECL - Korean Existing and Evaluated Chemical Substances*
- PICCS - Philippines Inventory of Chemicals and Chemical Substances*
- AICS - Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methyl ethyl ketone 78-93-3	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Methylisobutyl ketone 108-10-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Methylisobutyl ketone - 108-10-1	108-10-1	1-2	0.1

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical name	California Proposition 65
Methylisobutyl ketone - 108-10-1	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Methyl ethyl ketone 78-93-3	X	X	X
Methylisobutyl ketone 108-10-1	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards	Flammability	Instability	Special hazards
	-	-	-	-
<u>HMIS</u>	Health hazards	Flammability	Physical hazards	Personal Protection
	-	-	-	Not determined

Issue Date: 01-Jan-2013
Revision Date: 01-Mar-2024
Revision Note: Regulatory review

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet