

Product name: EM-Tec STC15 MEK solvent / thinner / cleaner
Document Nr.: SDS0015002170-01

Date: October 5th 2022
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Section 1: Identification of the substance or mixture and the company

1.1. Product Identifier

EM-Tec STC15 Methyl ethyl ketone - MEK solvent / thinner / cleaner EC #: 201-159-0 CAS #: 78-93-3
Registration number (REACH): 01-2119457290-43-xxxx
Index number in CLP Annex VI: 606-002-00-3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Diluting, removing, and cleaning of EM-Tec AG15 silver paint

1.3. Details of the supplier of the Safety Data Sheet

Rave Scientific
100 Franklin Square Dr.
Suite 101
Somerset, NJ 08873
Telephone: 1-732-898-3828
Email: info@ravescientific.com
Web: www.ravescientific.com

1.4 Emergency telephone number

911 (USA) or your national emergency telephone number for chemical spills, leaks, fires, exposures or accidents

Section 2: Hazards identification

2.1. Classification of the substance or mixture according to Regulation EC Nr. 1272/2008

Physical:	Flammable liquid, category 2, H225
Health:	Serious eye damage, category 2, H319 Specific target organ toxicity – single exposure, category 3, H336 (narcotic effects, drowsiness)
Environment:	Not classified
Other hazards:	Repeated exposure may cause skin dryness or cracking, EUH066

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2.2 Labelling elements accordance to Regulation EC Nr. 1272/2008

Hazard pictogramm(s):



GHS02



GHS07

Signal word:

Danger

Hazard statement(s):

H225: Highly flammable liquid and vapour
H319: Causes serious eye irritation
H336: May cause drowsiness or dizziness

Precautionary statement(s):

P102: Keep out of reach of children
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233: Keep container tightly closed
P241: Use explosion-proof (electrical/ventilating/lighting) equipment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing
P337/313: If eye irritation persists; get medical advice/attention
P370/378: In case of fire: Use foam or dry agent for extinction
P405: Store locked up
P501-2: Dispose of contents/container to an authorised waste collection point

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, the substance is not a PBT or a vPvB

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Section 3: Composition / information on components

3.1. Substances

1. CAS No 2. EC No 3. Index No 4. REACH No	% (weight)	Name	Classification according to regulation Nr 1272/2008 [CLP]
78-93-3 201-159-0 606-002-00-3 01-2119457290-43-xxxx	100	Ethyl methyl ketone MEK 2-Butanone	Flam. Liq. 2, Eye Irri. 2A, STOT SE 3; H225, H319, H335, EUH066

(* Explanation notes: see section 16)

3.2 Mixtures

Not applicable

Section 4: First aid measures

4.1. Description of first aid measures

- General information:** The usual precautions for handling chemical substances should be observed. If symptoms should occur, seek medical advice.
Immediately remove any clothing soiled by the product
- Contact with eyes:** Rinse cautiously with water for several minutes. If possible, remove contact lenses. Continue rinsing.
- Contact with skin:** Rinse with water/shower.
Seek medical attention if irritation persists.
- Inhalation:** Fresh air, keep warm and at rest.
Seek medical attention if ill effects occur
- Ingestion:** If swallowed, do not induce vomiting
Seek immediate medical advice

4.2. Important symptoms and effects, either immediate or delayed

Irritation, dizziness, drowsiness, narcosis

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4.3. Indication of any immediate medical attention and special treatment

None

Section 5: Firefighting Measures

5.1. Extinguishing media

Alcohol resistant foam. Water spray. Dry extinguishing powder. BC powder. Carbon dioxide.
Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour/air mixture. Solvent vapours are heavier than air and may spread along floors and form explosive mixtures with air. Places which are not ventilated, e.g. unventilated ground level areas such as trenches, conduits and shafts are particularly prone to the presence of flammable substances or mixtures. Vapours may form explosive mixtures with air.

In case of fire: carbon monoxide (CO) and carbon dioxide (CO₂) may be formed.

5.3 Advice to firefighters

Fight fire from a safe distance, with adequate cover
Do not move the load if exposed to heat.
In case of fire; do not breathe fumes
Wear self-contained breathing apparatus for fire fighting

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Shut off all ignition sources
Ensure adequate ventilation
Wear suitable protective clothing including eye/face protection

6.2 Environmental precautions

Avoid release to the environment
Do not allow to enter public sewers and waterways

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6.3 Methods and material for containment and clean up

Absorb spillage in suitable liquid binding inert material
Clean up spills immediately
Avoid breathing vapours
Control personal contact with the substance, by using protective equipment
Collect spillage, absorbed spillage and wipes in a flammable waste container
Wash spill area with soap and water to remove last traces of residue

6.4 Reference to other sections

See Section 7 for information on safe handling
See section 8 for information on personal protection equipment
See section 13 for disposal information

Section 7: Handling and storage

7.1. Precautions for safe handling

Keep away from sources of ignition
Take precautions against static discharges
Equipment should be grounded
Use explosion proof electrical/ventilating/lighting/equipment
Only use non-sparking tools
Do not breathe aerosols or vapours
Ensure adequate ventilation
Avoid contact with skin and eyes
Wash thoroughly after use
Wear protective gloves/protective clothing/eye protection/face protection
Have eyewash bottles available

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed, in a cool, well-ventilated place
Keep away from ignition sources
Store away from oxidising agents
Keep out of reach of children

7.3 Specific end uses(s)

Diluting, removing, and cleaning of EM-Tec AG15 silver paint.

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Section 8: Exposure control and personal protection

8.1. Control parameters

Exposure limits

Occupational exposure limits (OEL)

Ingredient	Material Name	Source	TWA	STEL	Ceiling - C	Notes
MEK	Ethyl methyl ketone	EU	600 mg/m ³	900 mg/m ³	Not available	2000/39/EC

8.2 Exposure controls

- Control procedures:** Ensure adequate ventilation
Keep away from heat sources and ignition sources
Take precautions against static discharges
- Personal protection:** Take precautions to avoid contact with eyes and skin when handling the products
Ensure adequate ventilation
- Inhalation:** In case of insufficient ventilation, wear suitable respiratory equipment:
Air purifying respirator with organic gas/vapour cartridge (type A)
- Hands and skin:** Wear suitable gloves against chemicals; recommended gloves:
Nitrile
- Eyes:** Wear safety goggles or full-face protection

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Appearance/physical state:** Liquid
- Colour:** colourless
- Odour:** mild sweet – fruity
- pH value:** 7 (neutral)
- Melting point :** -86°C
- Boiling point/range:** 79°C
- Flash point:** -8°C (closed cup)
- Relative evaporation rate:** not determined
- Explosion limits: upper limit:** 11.5%
lower limit: 1.5%
- Vapour pressure:** 105 hPa
- Relative density:** 0.81 g/cm³ @ 20°C
- Solubility in water:** soluble

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Auto-ignition: 514°C
Viscosity: 0.4938 mm²/s @ 20°C

9.2 Other information

VOC: 100% Ethyl methyl ketone

Section 10: Stability and reactivity

10.1. Reactivity

It is a reactive substance. Risk of ignition. Vapours may form explosive mixtures with air

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

May react violently with strong oxidiser

10.4 Conditions to avoid

Direct sunlight. High temperatures. Incompatible materials. Open flame. Sparks

10.5 Incompatible materials

Strong oxidisers.

10.6 Hazardous decomposition products

CO, CO₂.

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Section 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure:

- Inhalation:** Inhalation of solvent vapours may give rise to nausea, headaches, and dizziness
- Skin contact:** Prolonged skin contact will result in defatting of the skin, leading to irritation and in some cases to dermatitis
- Eye contact:** Causes serious eye irritation
- CMR effects:** Carcinogenicity classification criteria not met based on available data
Germ cell mutagenicity classification criteria not met based on available data
Reproductive toxicity classification criteria not met based on available data
- STOT-single exposure:** may cause drowsiness or dizziness
- STOT- repeated exposure:** classification criteria not met based on available data
- Aspiration hazard:** classification criteria not met based on available data

Toxicological data:

Ingredient	Toxicity	Notes
Ethyl methyl ketone - MEK	Oral (rat) LD50: 2054 mg/kg	

Symptoms related to physical, chemical and toxicological characteristics

- If swallowed:** Data are not available
- If in eyes:** Causes serious eye irritation
- If inhaled:** Fatigue, dizziness, narcosis
- If on skin:** Repeated exposure may cause skin dryness or cracking

11.2. Endocrine disrupting properties

Not listed

11.3. Toxicity

There is no additional information

Section 12: Ecological information

12.1. Toxicity

Shall not be classified as hazardous to the aquatic environment

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12.2 Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Ethyl methyl ketone - MEK	Readily biodegradable	Medium

12.3 Bioaccumulative potential

Ingredient	Bioaccumulation
Ethyl methyl ketone - MEK	LOW (Log Kow < 4)

12.4 Mobility in soil

Data are not available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Hazardous decomposition products

No experimental data available

Section 13: Disposal considerations

13.1. Waste treatment methods

- Product:** This material and its container must be disposed of as hazardous. Do not discharge into drains or the environment, dispose to an authorised waste collection point.
- National regulations:** Disposal should be in accordance with local, state or national legislation.

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Section 14: Transport information

Labels required:



14.1. UN number

UN-number: 1193

14.2 UN proper shipping name

Proper shipping name: Ethyl methyl ketone

14.3 Transport hazard class(es)

Class: 3
ADR/RID-Classification code: F1

14.4 Packing group

Packing: II
Limited Quantity: 1L

14.5 Incompatible materials

ADR/RID- Environmentally hazardous: Not applicable
IMDG-Marine pollutant: No relevant data
IATA/ICAO-Environmentally hazardous:No relevant data

14.6 Special precautions for user

ADR/RID-Tunnel code: (D/E)
IMDG-EMS: F-E, S-D
IATA/ICAO-PAX: 353
IATA/ICAO-CAO: 364
IATA/ICAO-DGR: Y341

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14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

Not applicable

Section 15: Regulatory information

15.1. Safety, health, and environmental regulations/legislation specific for the substance or mixture

UN-number: 1193

15.2 Chemical safety assessment

No information available

Section 16: Other information

RoHS Directive Compliant

This product is fully compliant with the directive 2100/65/EU Annex II (RoHS). It does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's or PBDE's.

WEEE

This product is not a piece of electrical or electronic equipment, and it therefore not governed by Directive 2002/96/EC on waste electrical and electronic equipment (WEEE)

Abbreviations:

Asp. Tox	Aspiration hazard
Carc.	Carcinogenicity
Exp.	Exposure
Flam.	Flammable
GHS	Global Harmonised System of Classification of Labelling Chemicals
Irrit.	Irritant
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
N/A	Not applicable
N/E	Not estimated
PBT	Persistent Bio-accumulative and Toxic
WEL	Workplace Exposure Limit
Repr.	Reproductive toxicant
RoHS	Restriction of Hazardous Substance
SEM	Scanning Electron Microscope
STEL	Short-Term Exposure Limit
STOT	Specific Target Organ Toxicity

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TCLo	Lowest published toxic concentration	(Contd. of page 11)
vPvB	very Persistent and very Bio-accumulative	
WEEE	Waste Electrical and Electronic Equipment	

DSD / DPD label elements



Relevant phrases

H225 – Highly flammable liquid and vapour.
H319 – Causes serious eye irritation.
H336 – May cause drowsiness or dizziness

This product should be stored, handled, and used in accordance with good industrial hygiene practices and in accordance with any legal regulation.

The information contained herewith is based on the present state of our knowledge and is intended to describe the product from the point of view of safety requirements. It does not guarantee any specific properties.

It is the responsibility of the user to query and verify any information seeming suspect or where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, state, federal and international regulations.

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