Regulation EC Nr. 1907/2006 Art.31

Product name: EM-Tec STC33 Isopropanol solvent / thinner / cleaner 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 STC33 Isopropanol solvent / thinner / cleaner. EC #: 200-661-7 CAS #:67-63-0

Registration number (REACH): 01-2119457558-25-xxxx

Index number in CLP Annex VI: 603-117-00-0

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

Diluting, removing, and cleaning of EM-Tec alcohol-based carbon 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:** Not classified

Environment: Not classified **Other hazards:** Not classified

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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			Classification according to regulation Nr 1272/2008 [CLP]
4. REACH No	% (weight)	Name	
67-63-1 200-661-7 603-117-00-0 01-2119457558-25-xxxx	100	Isopropanol Isopropyl-Alcohol (2-Propanol)	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: Wash with water and soap.

Seek medical attention if irritation persists.

Inhalation: Fresh air, keep warm and at rest.

Seek medical attention of ill effects occur

Ingestion: If swallowed, do not induce vomiting

Seek immediate medical advice

4.2. Important symptoms and effects, either immediate or delayed

No further relevant information available

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4.3. Indication of any immediate medical attention and special treatment

No further relevant information available

Section 5: Firefighting Measures

5.1. Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Direct fire hazard. Highly flammable. Gas / vapour flammable with air within explosion limits. Indirect fire hazard. May be ignited by sparks. Gas / vapour spreads to floor level: ignition hazard.

Direct explosion hazard

Indirect explosion hazard

Upon combustion CO and CO2 are formed. Violent to explosive reaction with many compounds.

Keep away from strong oxidisers.

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 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)

Solvent / thinner / cleaner for EM-Tec solvent-based silver / nickel / carbon paint / cement /paste.

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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	Peak	Notes
Isopropyl Alcohol	Isopropanol	EU	200ppm	200ppm	Not available	Not available

8.2 Exposure controls

Control procedures: Ensure adequate ventilation

Keep away from heat sources and ignition sources

Take precautions against static discharges

Take precautions to avoid contact with eyes and skin when handling the products Personal protection:

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

Alcohol / Stuffy mild odour **Odour:**

рΗ No data available

Melting point: -89°C **Boiling point/range:** 82°C

Flash point: 12°C (closed cup)

Relative evaporation rate: 6 **Explosion limits: upper limit:** 13.4% 2%

lower limit:

43 hPa @ 20°C Vapour pressure: 0.79 g/cm3 @ 20°C Relative density:

Solubility in water: soluble (Contd. on page 7)



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Auto-ignition: 425°C

Viscosity: not determined

9.2 Other information

VOC: 100% Isopropyl Alcohol

Section 10: Stability and reactivity

10.1. Reactivity

Violent to explosive reaction with (strong) oxidisers. Prolonged storage/in large quantities: may form Peroxides.

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

May react violently with oxidants

10.4 Conditions to avoid

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

10.5 Incompatible materials

Ammonia. Strong oxidisers. Strong acids

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 classification criteria not met based on available data

Toxicological data:

Ingredient	Toxicity	Notes
Isopropyl Alcohol	Dermal (rabbit) LD50: 12800mg/kg	
Isopropanol	Inhalation (rat) LC50: 73mg/l/4h	
	Oral (rat) LD50: 5045 mg/kg	Skin (rabbit): 500mg/24hr - mild

Symptoms related to physical, chemical and toxicological characteristics

If swallowed: vomiting, nausea, gastrointestinal complaints

If in eyes: causes serious eye irritation 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

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Section 12: Ecological information

12.1. Toxicity

Not classified

12.2 Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Isopropyl Alcohol	Readily biodegradable	Medium

12.3 Bio-accumulative potential

Ingredient	Bioaccumulation
Isopropyl Alcohol	LOW (Log Kow < 4)

12.4 Mobility in soil

Ingredient	Bioaccumulation
Isopropyl Alcohol	HIGH

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 in a safe way.

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: 1219

14.2 UN proper shipping name

Proper shipping name: Isopropyl alcohol

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: 1219

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 (Contd. on page 12)



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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.

H335 – May cause respiratory 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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