

SAFETY DATA SHEET

According to Regulation (EC) No 453/2010

SDS -ACE-0001
Version 1.7
Revision Date: 16.11.2021
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www.eamaterials.com

Section 1: IDENTIFICATION OF SUBSTANCE/ MIXTURE AND OF THE COMPANY

1.1 Product identifier

Product name : **Acetone**

Included product code : ACE010-2.5, ACE010-4.0, ACE012-2.5, ACE012-4.0,
ACE011-2.5P, ACE011-3.8P, ACE011-25M, ACE006-2.5P,
ACE006-3.8P, ACE006-10P, ACE006-25P, ACE008-2.5P,
ACE008-25P, ACE004-2.5P, ACE004-5P, ACE018-2.5P

1.2 Relevant identified uses of the substance or mixture

Identified uses : Laboratory chemicals, Manufacture of substances

Uses advised against : Not applicable

1.3 Details of the supplier of the safety datasheet

Company : Elite Advanced Materials Sdn Bhd
No 1, Jalan KPK1/2, Kawasan Perindustrian
Kundang, 48020 Rawang, Selangor, Malaysia

E-mail address : enquiry@eamaterials.com

1.4 Emergency telephone number

Emergency : +603-60343766 (Local business hours only)



Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flammable liquids	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	

(ECHA)

2.2 Label elements

Labeling in compliance to Regulation (EC) No. 1272/2008 [CLP/GHS]

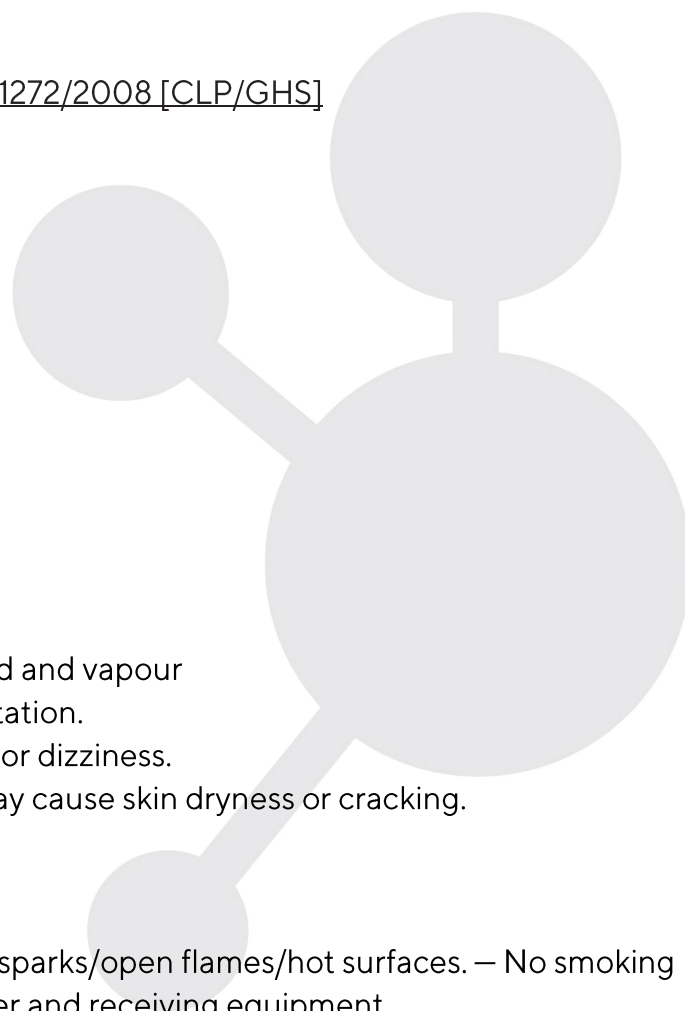
Hazard pictograms



GHS02



GHS07



Signal word

Danger

Hazard statement

H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements

P210	Keep away from heat/ sparks/open flames/hot surfaces. – No smoking
P240	Ground/bond container and receiving equipment.

Response

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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P370 + P378 IN CASE OF FIRE: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.

Storage
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

Repeated exposure may cause skin dryness or cracking.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Synonyms : Dimethyl Ketone, Propan-2-one
 Formula : C₃H₆O
 Molecular Weight : 58.08 g/mol
 CAS-No. : 67-64-1

Hazardous components according to Regulation (EC) No 1272/2008

Component	Identity	Classification Code	H-Code	Concentration (by wt)
Acetone	CAS-No.: 67-64-1	Flam. Liq. 2	H225	<=100 %
		Eye Irrit. 2	H319	
		STOT CNS 3	H336	

Section 4: FIRST AID MEASURES

4.1 Description of First Aid measures

General information

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Consult a physician.



In case of skin contact

Wash off with soap and plenty of water for at least 15 minutes. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and delayed symptoms and effects

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment

No data available.

Section 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide (CO₂) is required to extinguish flames.

Unsuitable extinguishing media

None.

5.2 Special hazards arising from the substance or mixture

Carbon oxides.

Combustible.

Vapours are heavier than air and may spread along floors.

Forms explosive mixtures with air at ambient temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.



5.3 Advice for fire-fighters

Wear full protective clothing and self-contained breathing apparatus if necessary. Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Use water spray to cool unopened containers. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal protective equipment is required during handling. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Do not discharge into drains or water ways. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see Section 13.

Section 7: HANDLING AND STORAGE

7.1 Precaution for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.



7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use

No further relevant information available.

Section 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component	ACGIH TLV (8 hr)	CAL/OSHA PEL (8 hr)	NIOSH REL (Up to 10 hr)
Acetone	TWA: 250 ppm	TWA: 500 ppm	TWA: 250 ppm
	STEL: 500 ppm	STEL: 750 ppm	

(OSHA)

8.2 Exposure control

Personal protection measures, such as personal protective equipment

Never eat, drink or smoke during handling the chemical. Ensure that there is adequate ventilation, especially in confined areas.

Eye/ face protection

Face shield and safety glasses is required during handling. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Discard of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.



Full contact*

Material: butyl-rubber

Minimum layer thickness: 0,3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact*

Material: butyl-rubber

Minimum layer thickness: 0,3 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

*Source – Sigma Aldrich, 2015

Body protection

Impervious clothing, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	Colorless
Odor	:	Not determined
Ordor threshold	:	0.1 – 662.5 ppm

pH - value	:	5-6
Melting point / Range	:	-95.4°C
Boiling point / Range	:	56 °C at 1.013 hPa
Flash point	:	< -20 °C [closed cup]
Evaporation rate	:	Not determined
Explosion limit - LEL	:	2.6 % (V)
Explosion limit - UEL	:	12.8 % (V)
Vapour pressure	:	233 hPa at 20°C
Vapor density (air = 1)	:	2.01
Density	:	0.79 g/cm ³ at 20.0 °C
Bulk density	:	Not determined
Solubility(ies)	:	Not determined
Water solubility	:	Completely miscible
Partition coefficient: n-octanol/water	:	log Pow: -0.24
Auto-ignition temperature	:	465.0 °C
Decomposition temperature	:	Not determined
Viscosity	:	0.32 mPa.s at 20°C
Explosive properties	:	Not determined
Oxidising properties	:	Not determined

(Merck, 2018; Ver 1.5)

9.2 Other information

No applicable.

Section 10 : STABILITY AND REACTIVITY

10.1 Reactivity

Vapours may form explosive mixture with air

10.2 Chemical stability

Sensitive to light

Sensitive to air



10.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:

Chromosulfuric acid, chromyl chloride, ethanolamine, fluorine, strong oxidising agents, strong reducing agents, nitric acid, chromium (IV) oxide

Risk of explosion with:

Non-metallic oxyhalides, halogen-halogen compounds, chloroform, nitrating acid, nitrosyl compounds, hydrogen peroxide, halogen oxides, organic nitro compounds, peroxide compounds

Exothermic reaction with:

Bromine, alkali metals, alkali hydroxides, halogenated hydrocarbon, sulphur dichloride, phosphorous oxychloride

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Bases, oxidizing agents, reducing agents. Acetone reacts violently with phosphorous oxychloride.

10.6 Hazardous decomposition products

Other decomposition products - No data available

Section 11 : TOXICOLOGY INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral	- 5840 mg/kg	(Rat)
LD50 Dermal	- 16.4 mL/kg	(Rabbit)
LC50 Inhalation	- 10000 ppm/4h	(Rat)

Skin corrosion/irritation

Skin - Rabbit

Remarks : Not irritating to skin. Repeated exposure may cause skin dryness or cracking.



Serious eye damage/eye irritation

Eyes - Rabbit

Remarks : Causes serious eye irritation

Respiratory or skin sensitisation

Remarks : Not expected to be a sensitiser.

Germ cell mutagenicity

Remarks : Not mutagenic.

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Propanol)

Reproductive toxicity

Remarks : Does not impair fertility. Not a developmental toxicant.

Specific target organ toxicity – single exposure

Remarks : May cause drowsiness and dizziness.

Specific target organ toxicity – repeated exposure

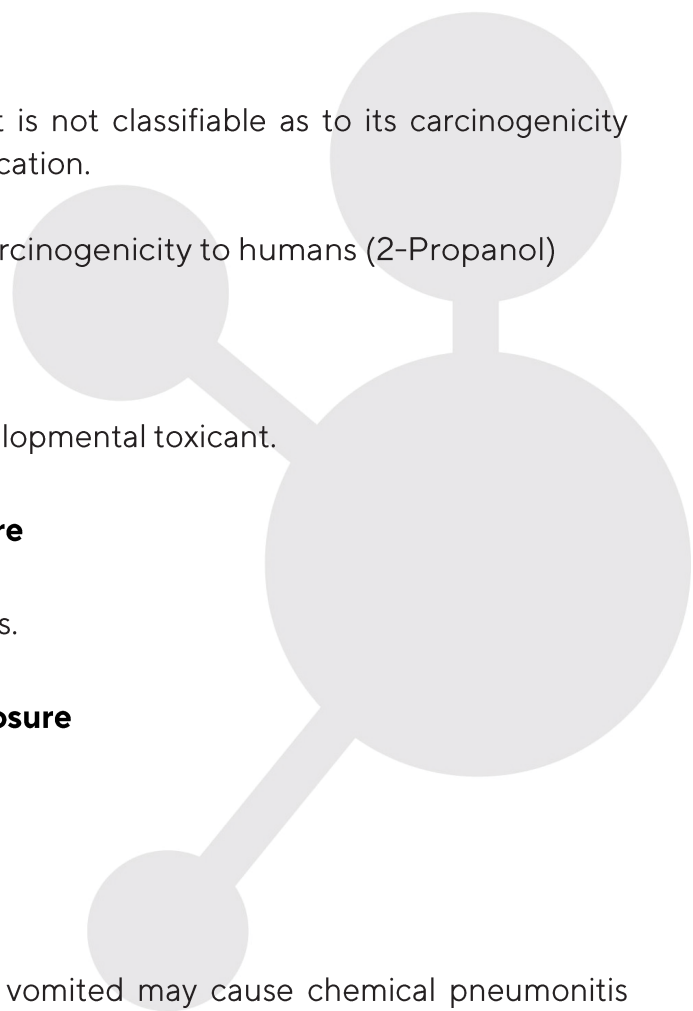
No data available.

Aspiration hazard

Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Additional Information

Remarks : Exposure may enhance the toxicity of other materials, Classifications by other authorities under varying regulatory frameworks may exist.



Section 12 : ECOLOGY INFORMATION

12.1 Ecotoxicity

Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 5.540 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 6100 mg/l - 48 h
Toxicity to algae	NOEC - M.aeruginosa - 530 mg/l - 8 d

12.2 Persistence and degradability

Biodegradability	Result: 91 % - 28 d - Readily biodegradable Method: OECD Test Guideline 301B
Biochemical Oxygen Demand (BOD)	1850 mg/g (5 d)
Chemical Oxygen Demand (COD)	2070 mg/g

(Merck, 2018; Ver 1.5)

12.3 Bioaccumulative potential

Partition coefficient: n-Octanol/water

Log Pow: -0.24

(Merck, 2018; Ver 1.5)

12.4 Mobility in soil

No data available

12.5 Other adverse effects

No data available



Section 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment method

Product

Waste material must be disposed according to national and local regulations. Keep the chemicals in its specific waste container according to the waste classification.

According to Quality Environment Regulation (Scheduled Waste) 2005, waste need to be sent to designated premise for recycle, treatment or disposal. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14 : TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 1090	IMDG: 1090	IATA-DGR: 1090
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14.2 UN proper shipping name

ADR/RID:	ACETONE
IMDG:	ACETONE
IATA-DGR:	ACETONE

14.3 Transport hazard class(es)

ADR/RID: 3	IMDG: 3	IATA-DGR: 3
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14.4 Packaging group

ADR/RID: II	IMDG: II	IATA-DGR: II
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14.5 Environmental hazards

ADR/RID: no	IMDG Marine pollutant: no	IATA-DGR: no
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14.6 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

14.7 Special precautions for user

No data available

Section 15 : REGULATORY INFORMATION

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

No data available

Section 16 : OTHER INFORMATION

This information is based on present level of our knowledge; however, this shall not constitute a guarantee product features and shall not establish a legally valid contractual relationship.

Abbreviations:

ADR : European agreement concerning the international carriage of dangerous goods by road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association

ICAO : International Civil Aviation Organization

RID : Regulations concerning the International Carriage of Dangerous goods by rail.



Notice to reader

The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the products and should not be construed as any guarantee of technical performance or suitability for particular application.

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