SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

Product Name:	ALTECO MR
Synonym(s):	None
Product Code:	None
General Use:	Adhesives
Product Description:	Powerful instant glue on cyanoacrylate.
Company Name:	ALTECO INC
Address:	5-8 Nishiekimae-Cho Ibaraki-City Osaka Japan
Telephone No:	+81-72-627-1617
Emergency Telephone No:	+81-72-627-1617

2. Hazard Identification

GHS Classification (Based on NITE)

Physical Hazards

Explosives	Classification not possible
Flammable gases	Not applicable
Flammable aerosols	Not applicable
Oxidizing gases	Not applicable
Gases under pressure	Not applicable
Flammable liquids	Category 4
Flammable solids	Not applicable
Self-reactive substances and mixtures	Classification not possible
Pyrophoric liquids	Not applicable
Pyrophoric solids	Not applicable
Self-heating substances and mixtures	Classification not possible
Substances and mixtures which, in contact with water, emit flammable gases	Not applicable
Oxidizing liquids	Not applicable
Oxidizing solids	Not applicable
Organic peroxides	Not applicable
Corrosive to metals	Not classified

Human Health Hazards

Acute toxicity (Oral)	Category 4
Acute toxicity (Dermal)	Not classified
Acute toxicity (Inhalation: Gases)	Not applicable
Acute toxicity (Inhalation: Vapors)	Category 2
Acute toxicity (Inhalation: Dusts)	Not applicable
Acute toxicity (Inhalation: Mists)	Classification not possible
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Respiratory sensitization	Category 1
Skin sensitization	Not classified
Germ cell mutagenicity	Category 1B
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Specific target organ toxicity - Single exposure	Category 3(respiratory irritation)
Specific target organ toxicity - Repeated exposure	Classification not possible
Aspiration hazard	Classification not possible

Environmental Hazards

Acute toxicity to the aquatic environment	Category 3
Chronic toxicity to the aquatic environment	Classification not possible
Hazardous to the ozone layer	Classification not possible

Label Elements

Pictogram and Symbol : Skull And Crossbone, Health hazard

Signal word : Danger

Hazard statement : Combustible liquid
Harmful if swallowed
Fatal in inhaled.
Causes skin irritation
Causes serious eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation .
May cause genetic defects
Harmful to aquatic life

Precaution :

[Prevention]

Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Avoid breathing mist/vapors/spray.
Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.

[Response]

If on skin : Wash with plenty of soap and water.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
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 skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use appropriate extinction.

[Storage]

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

[Disposal]

Dispose of contents/container in accordance with local/regional/ national/international regulations.

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3. Composition/information on ingredients

3.1 Substance : Methyl 2-cyanoacrylate

3.2 Other name : 2-Cyanoacrylic acid, methyl ester, 2-Cyano-2-propenoic acid, methyl ester, METHYL 2-CYANOACRYLATE, Methyl alpha-cyanoacrylate

3.3Ingredients

Ingredients	wt%	CAS Registry No.	Chemical Formula
Methyl cyanoacrylate	90～99	137-05-3	$CH_2C(CN)COOCH_3$
PMMA	＜10	secret	secret
Hydroquinone	0.1～0.3	123-31-9	$C_6H_4(OH)_2$

3.4Inventory status: Methyl cyanoacrylate

TSCA	Listed
EINECS No.	205-275-2
RTECS No.	AS7000000
ICSC No.	1272
EC No.	607-235-00-3
EC Classification	Xi;R36/37/38
EC Labeling	Xi R: 36/37/38 S: (2-)23-24/25-26

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4. First aid measures

4.1 Description of necessary measures, subdivided according to the different routes of exposure, ie, inhalation, skin and eye contact, and ingestion

If on skin: Wash with plenty of soap and water.

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

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.

4.2 Indication of immediate medical attention and special treatment needed, if necessary

If skin irritation or rash occurs: Get medical advice/attention

If eye irritation persists: Get medical advice/attention

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5. Firefighting measures

5.1 Acute hazards/symptoms in fire :	Combustible.
5.2 Prevention in fire :	No open flames.
5.3 First aid /Firefighting in fire :	In case of fire in the surroundings: use appropriate extinguishing media.
5.4 Acute hazards/symptoms in explosion :	Above 75 ℃ explosive vapor/air mixtures may be formed.
5.5 Prevention in explosion :	Above 75 ℃use a closed system, ventilation, and explosion-proof electrical equipment.
5.6 First aid/firefighting in explosion :	In case of fire: keep drums, etc., cool by spraying with water.

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6. Accidental release measures

6.1 Evacuate nonessential personnel.

6.2 Shut off all sources of ignition ; No fires , smoking or flames in area.

6.3 Ventilate area after material pick up is completed.

6.4 For small spills: Absorb spill with inert material (dry cloth, dry sand), then place in a chemical waste containers using non-sparking tools.
Flush residual spill (area) with plenty of water.

6.5 For large spills: Dike for later disposal. Wash with plenty of water.

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7. Handling and storage

7.1 Precautions for safe handling.

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Avoid breathing mist/vapors/spray.

Wash hands thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities.

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

Store locked up.

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8. Exposure controls/personal protection

8.1 Control parameters, eg, occupational exposure limit values or biological limit values

ACGIH 2007, TLV-TWA 0.2ppm

8.2 Appropriate engineering controls (Please refer to engineering controls described in "7.1 Precautions for safe handling".)

8.3 Individual protection measures, such as personal protective equipment (Please refer to Individual protection measures described in "7.1 Precautions for safe handling".)

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9. Physical and chemical properties

9.1 Appearance (physical state, color, etc) : Transparent or Light Yellowish Liquid

9.2 Odor : Sharp, irritating

9.3 Odor threshold : No data

9.4 pH : 4～6

9.5 Melting point/Freezing point : 1.5 ℃

9.6 Initial boiling point and boiling range : above 190 ℃(374 ° F)

9.7 Flash point : above 83 ℃(ICSC, 2001).

9.8 Evaporation rate : No data

9.9 Flammability (solid, gas) : liquid

9.10 Upper/lower flammability or explosive limits : lower limit 1.7 vol%

9.11 Vapor pressure : <26.7 Pa (25 ℃)

9.12 Relative density : 0.9～1.1 (water=1)

9.13 Solubility(ies) : not soluble in water. slightly soluble in alcohol, acetone, MEK, toluene, DMF, nitromethane.

9.14 Partition coefficient: n-octanol/water : LogPow 0.03

9.15Autoignition temperature : 465 ℃

9.16 Decomposition temperature : No data

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10. Stability and reactivity

10.1Condition to avoid:	High humidity, high temperature or direct sunlight.
10.2 Stability:	Stable (cool and dry area.).
10.3 Materials to avoid:	Polymerized by contact with water, alcohols, amines, alkalies.
10.4 Hazardous decomposition or by products:	CO_2, oxides and nitrogen and unknown hydrocarbons.

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11. Toxicological information

11.1 Acute toxicity (Oral)

Category 4 by NITE Data Base.

11.2 Acute toxicity (Dermal)

No data available.

11.3 Acute toxicity (Inhalation: Gases)

Liquid (GHS definition)

11.4 Acute toxicity (Inhalation: Vapors)

Category 2 by NITE Data Base.

11.5 Acute toxicity (Inhalation: Dusts / Mist)

No data available.

11.6 Skin corrosion / irritation

Category 2 by NITE Data Base.

11.7 Serious eye damage / eye irritation

Category 2A by NITE Data Base.

11.8 Respiratory sensitization / Skin sensitization

Respiratory sensitization was set to Category 1.And skin sensitization was out of Category .

11.9 Germ cell mutagenicity

Category 1B by NITE Data Base.

11.10 Carcinogenicity

No data available.

11.11 Reproductive toxicity

No data available.

11.12 Specific target organ toxicity - Single exposure

Category 3 by NITE Data Base. May cause respiratory irritation

11.13 Specific target organ toxicity - Repeated exposure

No data available.

11.14 Aspiration hazard

No data available.

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12. Ecological information

12.1 Acute toxicity to the aquatic environment

Category 3 by NITE Data Base.

12.2 Chronic toxicity to the aquatic environment

No data available.

12.3 Hazardous to the ozone layer

No data available.

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13. Disposal considerations

13.1 Description of waste residues and information on their safe handling and methods of disposal

If you would like to dispose of this chemical, you should properly dispose of this by yourself or ask qualified specific agents dispose of this according to related legislations and local regulations. If you would like to ask the agents dispose of this chemical, you should provide sufficient information on dangerousness and hazard of this chemical.

13.2 The disposal of any contaminated packaging

Container should be recycled after cleaning or if you would like to dispose of container of this chemical, you should properly dispose of this by yourself or ask qualified specific agents dispose of this according to related legislations and local regulations. If you would like to ask the agents dispose of this container, you should provide sufficient information on dangerousness and hazard of this chemical in this container and information on ingredient and notice of container.

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14. Transport information

14.1 U.S.Department of Transportation Ground Transport (49 CFR 172)

Proper shipping name:	Unrestricted (Not more than 450 liters.)
	Combustible liquids n.o.s. (Cyanoacrylate ester) (More than 450 liters)
Hazard class or division:	Unrestricted (Not more than 450 liters.)
	Combustible liquids. (More than 450 liters)
Identification number:	None (Not more than 450 liters.)
	NA1993 (More than 450 liters)
Marine pollutant:	None.

14.2 International Air Transportation (ICA/IATA)

Proper shipping name:	Unrestricted
Class or division:	Unrestricted
UN or ID number:	None

14.3 Water Transportation (IMO/IMDG)

Proper shipping name:	Unrestricted
Hazard class or division:	None
Identification number:	None
Marine pollutant:	None

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15. Regulatory information

Safety, health and environmental regulations specific for the product in question (under survey)

CA Proportion 65:	No California proposition 65 chemicals are known to be present.

TSCA 8(b) Inventory Status: All components are listed or are exempt from listing on Toxic Substances Control Act Inventory.

EINECS: All components are listed on EINECS

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16. Other information including information on preparation and revision of the SDS

(Reference)

NITE GHS Classification of this substance (English/Japanese)

NITE review data by public comment（Japanese-Hydroquinone 2007.12.25）

GHS Model Label of this substance (English/Japanese)

GHS Model Label List of 714 Chemicals in OSH in Japan (English/Japanese)

GHS Classification Manual, Technical Guidance and Results of the classification in Japan (English/Japanese)

Technical Guidance on GHS classification in Japan (English/Japanese)

Japan Advanced Information center of Safety and Health - Chemical information (Only Japanese)

ICSC 1272 (English/Japanese)

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