

Safety Data Sheet

ML 5 - 5000

SDS Revision Date:

MAY2015

ADHESIVE



1. Identification

1.1. Product identifier

Product Identity ML 5 - 5000
Alternate Names Cyanoacrylate Adhesive

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

Intended use See Technical Data Sheet.
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Adhesive R & D Inc.
4603 Anderson Drive
Eau Claire, WI. 54703

Contact Telephone No. 1 (715) 832-4557

Customer Service: Adhesive R&D Inc.

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Combustible Liquid;H227	Combustible Liquid.
Skin Irrit. 2;H315	Causes skin irritation.
Eye Irrit. 2;H319	Causes serious eye irritation.
Carc. 2;H351	Suspected of causing cancer.
STOT SE 3;H335	May cause respiratory irritation.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



Warning

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H227 Combustible liquid.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.

[Prevention]:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection / face protection.

[Response]:

P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P308+313 IF exposed or concerned: Get medical advice / attention.
P321 Specific treatment (see information on this label).
P332+313 If skin irritation occurs: Get medical advice / attention.
P337+313 If eye irritation persists: Get medical advice / attention.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P362 Take off contaminated clothing and wash before reuse.

[Storage]:

P403+235 Store in a well ventilated place. Keep cool.
P405 Store locked up.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

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3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Ethyl cyanoacrylate CAS Number: 0007085-85-0	50 - 75	Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315	[1]
Methyl methacrylate polymer CAS Number: 0009011-14-7	10 - 25	Not Classified	[1]
Hydroquinone CAS Number: 0000123-31-9	0.10 - 1.0	Carc. 2;H351 Muta. 2;H341 Acute tox. 4;H302 Eye Dam. 1;H318 Skin Sens. 1;H317 Aquatic Acute 1;H400	[1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes

Immediately flush with plenty of water for at least 15 minutes. Get medical attention. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. Do not force eye open. Cyanoacrylate will bond to eye protein and will cause lachrymatory effect which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Medical attention should be sought in case solid particles of polymerized cyanoacrylate may have been trapped behind the eyelid causing abrasive damage.

Skin

Do not pull bonded skin apart. Soak in warm soapy water. Gently peel apart using a blunt instrument. If skin is burned due to the rapid generation of heat by a large drop, seek medical attention. If lips are bonded, apply warm water to the lips and encourage wetting and pressure from saliva in the mouth. Peel or roll lips apart. Do not pull lips apart with direct opposing force.

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Ingestion

Ensure breathing passages are not obstructed. The product will polymerize rapidly and bond to the mouth making it almost impossible to swallow. Saliva will separate any solidified product in several hours. Prevent the patient from swallowing any separated mass.

4.2. Most important symptoms and effects, both acute and delayed

Overview

Skin contact may cause burns. Bonds skin rapidly. Skin and eye irritant. Vapor is irritating to eyes and mucous membranes. When above TLV. Prolonged overexposure to vapors may produce allergic reactions with asthma like symptoms in sensitive individuals. Possible cancer hazard. Contains an ingredient which may cause cancer based on animal data (See Section 3 and Section 15 for each ingredient). Risk of cancer depends on duration and level of exposure.

See section 2 for further details.

Eyes

Causes serious eye irritation.

Skin

Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Carbon Dioxide, Dry Chemicals, Foam

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Irritating organic vapors may be released. Use of a SCBA is recommended.

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

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters

A self-contained breathing apparatus is required.

ERG Guide No. 128

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

DO NOT use cloth materials. In case of a leak or spill, flood area with water to polymerize the material. Soak up with inert absorbent. Ventilate area. Prevent product from entering drains.

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7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid breathing vapors.

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Store in a cool dry area, away from heat, sparks and open flame. Keep containers sealed when not in use. Store out of direct sunlight.

Incompatible materials: Polymerized by water, alcohol, amines and alkalis.

Store below 72 F.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000123-31-9	Hydroquinone	OSHA	TWA 2 mg/m ³
		ACGIH	TWA: 1 mg/m ³ S, Revised 2008,
		NIOSH	C 2 mg/m ³ [15-minute]
		Supplier	No Established Limit
0007085-85-0	Ethyl cyanoacrylate	OSHA	No Established Limit
		ACGIH	TWA: 0.2 ppm
		NIOSH	No Established Limit
		Supplier	No Established Limit
0009011-14-7	Methyl methacrylate polymer	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

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Carcinogen Data

CAS No.	Ingredient	Source	Value
0000123-31-9	Hydroquinone	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0007085-85-0	Ethyl cyanoacrylate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0009011-14-7	Methyl methacrylate polymer	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;

8.2. Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes

Protective safety glasses recommended

Skin

Use polyethylene gloves and aprons. DO NOT use cotton/cloth gloves.

Engineering Controls

Positive draft exhaust ventilation should be provided to maintain vapor concentration levels below TLV. Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance

Clear Liquid

Odor

Sharp

Odor threshold

Not Measured

pH

Not Measured

Melting point / freezing point

Not Measured

Initial boiling point and boiling range

Greater than 300 F

Flash Point

160 - 200 F (TCC)

Evaporation rate (Ether = 1)

Not Measured

Flammability (solid, gas)

Not Applicable

Upper/lower flammability or explosive limits

Lower Explosive Limit: Not Measured

Upper Explosive Limit: Not Measured

Vapor pressure (Pa)

Not Measured

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Vapor Density	Not Measured
Specific Gravity	1.1
Solubility in Water	Polymerized by water
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Polymerized by water, alcohol, amines and alkalis.

10.6. Hazardous decomposition products

Irritating organic vapors may be released. Use of a SCBA is recommended.

11. Toxicological information

Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Ethyl cyanoacrylate - (7085-85-0)	4,500.00, Rat - Category: 5	2,000.10, Rabbit - Category: 5	No data available	No data available	No data available
Methyl methacrylate polymer - (9011-14-7)	No data available	No data available	No data available	No data available	No data available
Hydroquinone - (123-31-9)	320.00, Rat - Category: 4	4,800.00, Rat - Category: 5	No data available	No data available	No data available

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Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	2	Suspected of causing cancer.
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

Toxic to aquatic life

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Ethyl cyanoacrylate - (7085-85-0)	Not Available	Not Available	Not Available
Methyl methacrylate polymer - (9011-14-7)	Not Available	Not Available	Not Available
Hydroquinone - (123-31-9)	0.044, Oncorhynchus mykiss	0.13, Daphnia magna	0.335 (72 hr), Pseudokirchneriella subcapitata

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

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12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	NA1993	Not regulated	UN3334
14.2. UN proper shipping name	Combustible liquid, n.o.s., (Cyanoacrylate ester)	Not regulated	Aviation regulated liquids N.O.S. (Cyanoacrylate ester)
14.3. Transport hazard class(es)	DOT Hazard Class: Combustible liquid	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: 9
14.4. Packing group	III	Not Applicable	III EXCEPTIONS: (Not more than 500ml). Unrestricted
14.5. Environmental hazards			
IMDG	Marine Pollutant: No		
14.6. Special precautions for user	No further information		

Please note that Cyanoacrylates are not restricted for domestic ground transportation in non bulk containers (The DOT defines a bulk container as a "Package" containing more than 450 liters. The "Package" is the individual bottle, tube or drum, not a carton containing many bottles.

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.
WHMIS Classification	B3 D2A

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US EPA Tier II Hazards

Fire: Yes

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes

Delayed (Chronic): Yes

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

Hydroquinone

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Ethyl cyanoacrylate

Pennsylvania RTK Substances (>1%) :

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

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H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

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