

Safety Data Sheet

CYA 4404

**AEROCHEM**

1. Identification

Product identifier	CYA 4404
Product code	COCYA440428GR, COCYA4404454GR
Other means of identification	Cyanoacrylate adhesive. TM/MD
Recommended use of the chemical and restrictions on use	Instant bond cyanoacrylate adhesives. Not recommended for any other use not detailed on product data sheet or label.
Manufacturer	AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada Tel. 514-630-2800 General Information: 1-888-592-5837 Fax 514-630-2828 www.aerochem.ca
Emergency phone number	Quebec Poison Center: 1-800-463-5060 (toll free in QC) Ontario and Manitoba Poison Centres: 1-800-268-9017 or 419-813-5900 BC Drug and Poison Information Centre: 1-800-567-8911 (toll free in BC) or contact your local poison control centre in the state/province or territory where you live. INFOTRAC® 1-800-535-5053. International call collect: 1-352-323-3500 24 hours/day, 7 days/week.

2. Hazard identification

Summary	Bonds skin in seconds. Combustible liquid. Keep away from heat, sparks and open flame. Avoid all contact with the skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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WHMIS 2015/OSHA HCS 2012/GHS



Flammable liquids (Category 4)
Serious eye damage/eye irritation (Category 2)
Specific target organ toxicity, single exposure, Respiratory tract irritation (Category 3)
Health hazards not otherwise classified (HHNOC)

WARNING

H227: Combustible liquid
H3XX: Bonds skin in seconds.
H319: Causes serious eye irritation
H335: May cause respiratory irritation
P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking.
P261: Avoid breathing vapours.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear gloves and eye protection.
P302+352: IF ON SKIN: Wash with soap and water.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312: 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.
 P337+313: If eye irritation persists: Get medical advice or attention.
 P321: Specific treatment (see section 4 of SDS).
 P370+378: In case of fire: Use ABC dry chemical to extinguish.
 P403+233: Store in a well ventilated place. Keep container tightly closed.
 P405: Store locked up.
 P501: Dispose of contents and container in accordance with local regulations.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Ethyl 2-cyanoacrylate	7085-85-0	90 - 100 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	No attempt should be made to remove material from skin. Wash skin with warm water and mild soap for at least 15 minutes. 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. Remove contaminated clothing and wash before reuse. If lips are bonded, apply warm water to the lips and encourage wetting and pressure from saliva in mouth. Do not pull lips apart with direct opposing force. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses if easy to do. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention. If eyelids are bonded closed, release eyelashes with warm water by covering with a wet pad. Do not attempt to physically remove solids or gums from eye. Cyanoacrylate will bond to eye protein and will cause a 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 trapped behind the eyelid caused abrasive damage.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. The product will polymerize rapidly and bond to the mouth making it almost impossible to swallow. Make sure that the respiratory tract are not obstructed. Never give anything by mouth if victim is unconscious or convulsing. If lips are bonded, apply warm water to the lips and encourage wetting and pressure from saliva in mouth. Do not pull lips apart with direct opposing force. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	Bonds skin in seconds. May cause redness and irritation to eyes. May cause irritation to nose, throat and respiratory tract.
Notes to the physician	Surgery is not necessary to separate accidentally bonded tissues. Experience has shown that bonded tissues are best treated by passive, non-surgical first aid. If rapid curing has caused thermal burns they should be treated symptomatically after adhesive is removed.

5. Fire-fighting measures

Suitable extinguishing media	Dried powder, chemical foam, carbon dioxide (CO ₂), ABC fire extinguishing. Do not use a heavy water jet.
Specific hazards arising from the chemical	Combustible liquid and vapours. May be ignited by heat, sparks, flame or static electricity.

Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	The product reacts violently with water, evolving heat.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry in sewer and other enclosed area. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Ventilate the area well. Remove sources of ignition. Absorb with inert material (soil, sand, vermiculite) or wipe up or scrape up and place in an appropriate waste disposal container clearly identified. Finish cleaning the contaminated surface by rinsing with soapy water.

7. Handling and storage

Precautions for safe handling	Keep away from heat, sparks and open flame. Use only in well ventilated area. Avoid all contact with the skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Storage and handling should follow the NFPA 30 Flammable and/or Combustible Liquids Code and the National Fire Code of Canada (NFCC). Store in dry protected area free from humidity, freezing temperatures or extreme temperature changes. Store away from oxidizing materials and incompatible materials (see section 10).
Storage temperature	10 to 40°C (50 to 104°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	No IDLH value is reported.		
Ethyl 2-cyanoacrylate	TWA (8h)	0.2 ppm	ACGIH , BC, ON
Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.		
Individual protection measures			
Eye	Wear safety glasses with side shields. If there is a risk of contact with eyes, wear chemical splash goggles.		
Hands	Wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. Discard gloves with tears, pinholes, or signs of wear. Do not use PVC, nylon or cotton gloves.		
Skin	Wear normal work clothing covering arms and legs as required by employer code.		
Respiratory			

Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA.

Feet

No measures will be necessary in normal use.



Safety glasses Nitrile disposable gloves

9. Physical and chemical properties

Physical state	Liquid	Flammability	Combustible
Colour	Colourless	Flammability limits	N/Av.
Odour	Sharp odor	Flash point	80 to 93°C (176 to 199.4°F)
Odour threshold	1 to 2 ppm	Auto-ignition temperature	485°C (905°F)
pH	N/Av.	Sensibility to electrostatic charges	Yes
Melting point	N/Av.	Sensibility to sparks and/or friction	No
Freezing point	N/Av.	Vapour density	3 (Air = 1)
Boiling point	>149°C (300.2°F)	Relative density	1.05 kg/L (Water = 1)
Solubility	Polymerizes on contact with water.	Partition coefficient n-octanol/water	N/Av.
Evaporation rate	< Butyl Acetate	Decomposition temperature	N/Av.
Vapour pressure	<0.0267kPa (0.2 mm Hg)	Viscosity	N/Av.
Percent Volatile	N/Av.	Molecular mass	N/Av.
N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	No information available for this product.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	Rapid exothermic polymerization will occur on contact with water, alcohols, alkalis and amines.
Conditions to avoid	Avoid heat, flame and sparks. Avoid contact with incompatible materials.
Incompatible materials	Water, alcohols, amines, bases, strong oxidants.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.


11. Toxicological information

Numerical measures of toxicity	Ethyl 2-cyanoacrylate Ingestion >5000 mg/kg Rat LD50 Skin >2000 mg/kg Rabbit LD50
Likely routes of exposure	Skin, eyes, inhalation.
Delayed, immediate and chronic effects	<p>Eye contact Eyelids may bond. May cause redness and irritation to eyes. Ethyl 2-cyanoacrylate (CAS 7085-85-0) is irritating on eyes (Rabbit, OECD Guideline 405).</p> <p>Skin contact Bonds skin in seconds. May cause redness and slight irritation of the skin. Ethyl 2-cyanoacrylate (CAS 7085-85-0) is slightly irritating on skin (Rabbit, OECD Guideline 404).</p> <p>Inhalation May cause irritation to nose, throat and respiratory tract.</p> <p>Ingestion The product will polymerize rapidly and bond to the mouth making it almost impossible to swallow.</p> <p>Respiratory or skin sensitization Cyanoacrylates have been reported to cause allergic reaction but due to rapid polymerization at the skin surface, an allergic response is rare. Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.</p> <p>IARC/NTP Classification No ingredients listed.</p> <p>Carcinogenicity Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.</p> <p>Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> <p>Reproductive toxicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.</p> <p>Specific target organ toxicity - single exposure Respiratory system.</p> <p>Specific target organ toxicity - repeated exposure No target organ is listed.</p>
Interactive effects	No information available.
Other information	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.

12. Ecological information

Ecological toxicity	Fish, various LC50 N/A Aquatic Invertebrates, various EC50 N/A Aquatic Plant - various EC50 N/A
Persistence	Not persistent in aquatic environment.
Degradability	Ethyl 2-cyanoacrylate (CAS 7085-85-0) polymerizes rapidly on contact with moisture. Therefore, biodegradation is not a relevant environmental fate process for this substance.
Bioaccumulative potential	No information available for this product.
Mobility in soil	No information available for this product.
Other adverse effects	This chemical does not deplete the ozone layer.

13. Disposal considerations

	<p>Container Important! Prevent waste generation. Use in full. Cured material can be disposed of as non-hazardous waste. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.</p>
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14. Transport information

UN Number	UN
UN Proper Shipping Name	Regulated by 49 CFR DOT (USA). COMBUSTIBLE LIQUID, N.O.S. (Ethyl cyanoacrylate)
Environmental hazards	This material is not listed as a marine pollutant.
Special precautions for user	49 CFR DOT (USA) Shipping Information: NA1993, Class 3, PG III. Not regulated in containers less than 450 L (119 gallons). See art. 173.150; Exceptions for Class 3 (flammable and combustible liquids). Permit required for transportation with proper DANGER placards displayed on vehicle.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Emergency response guidebook 2016	
IMO/IMDG - International Maritime Transport	
Classification	Not regulated
IATA - International Air Transport Association	
Classification	Not available
<p>These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.</p>	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Ethyl 2-cyanoacrylate	7085-85-0		X		

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CER CLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Prio.
Ethyl 2-cyanoacrylate	7085-85-0	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances

- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

No ingredients listed.

Other regulations

WHMIS 1988



B3 D2B

Class B3 : Combustible Liquid

Class D2B : Toxic material causing other toxic effects

HMIS



NFPA



16. Other information

Date
(YYYY-MM-DD)

AEROCHEM Inc. 2017-01-20

Version

01

Other information

REFERENCES:

- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, <http://hazmap.nlm.nih.gov/index.php>
- TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, <http://toxnet.nlm.nih.gov/>
- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), <http://www.reptox.csst.qc.ca>
- OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, <http://webnet.oecd.org/HPV/UI/Search.aspx>
- The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, www.ncbi.nlm.nih.gov

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

HMIS: Hazardous Materials Identification System

NFPA: National Fire Protection Association

OSHA: Occupational Safety and Health Administration (USA)

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

RSST: Règlement sur la santé et la sécurité du travail (Québec)

GHS: Globally Harmonized System

IARC: International Agency for Research on Cancer

IDLH: Immediately Dangerous to Life or Health

STEL: Short Term Exposure Limit (15 min)
TWA: Time Weighted Averages
WHMIS: Workplace Hazardous Materials Information System

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