



**Chemical<sup>TM</sup>  
Concepts**  
Our customers stick with us.  
**SAFETY DATA SHEET**

## 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Concepts, Inc  
410 Pike Road  
Huntingdon Valley, PA. 19006  
1.800.220.1966 Phone  
215.357.2754 Fax

**EMERGENCY PHONE 1.800.535.5053**

**GENERAL USE: ADHESIVE USED IN ASSEMBLY FOR BONDING.**

**SYNONYMS: SUPER GLUE, INSTANT ADHESIVE**

## 2. HAZARDS IDENTIFICATION

### GHS CLASSIFICATIONS

#### Health:

Eye Irritation, Category 2A  
Skin Irritation, Category 2  
Target Organ Toxicity (Single exposure), Category 3  
Skin Sensitization, Category 1

#### Physical:

Flammable Liquids, Category 4

### GHS LABEL ELEMENTS



GHS07

Exclamation  
mark

**SIGNAL WORD: WARNING**

### HAZARD STATEMENTS

H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H317: May cause an allergic skin reaction.  
H335: May cause respiratory irritation.  
H227: Combustible liquid.

### PRECAUTIONARY STATEMENT(S)

#### Prevention:

P264: Wash skin and hands thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271: Use only outdoors or in a well-ventilated area.  
P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

### PRECAUTIONARY PHRASES:

**Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of reach of children.**

**Response:**

P370: In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313: If eye irritation persists: Get medical advice/attention.  
P313: Get medical advice/attention.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.  
P362: Take off contaminated clothing and wash before reuse.  
P304+P340: IF INHALED: Remove 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.

**Risk:**

R36/37/38: Irritating to eyes, respiratory system and skin.

**Safety Phrases:**

S2: Keep out of reach of children.  
S23: Do not breathe vapor/mist/fumes.  
S24/25: Avoid contact with skin and eyes.  
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Storage:**

P403+P233: Store in a well-ventilated place. Keep container tightly closed.  
P403+P235: Store in a well-ventilated place. Keep cool.  
P405: Store locked up.

**Disposal:**

7944L5O1: Dispose of in a manner consistent with federal, state, and local regulations.

**HMIS RATING: HEALTH 2      FLAMMABILITY 2      PHYSICAL HAZARD 1**

**Other hazards:**

PBT: This product is not identified as a PBT/vPvB substance.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Wt.%	CAS
ETHYL-2-CYANO ACRYLATE	80 - 100	7085-85-0
Polymethyl methacrylate	10 - 20	9011-14-7

**4. FIRST AID MEASURES**

**EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

**SKIN:** Wash with soap and water. Peel or roll skin apart.

**INGESTION:** Peel or roll skin apart. Adhesive becomes solid in contact with saliva and may adhere to inside of mouth. Saliva will lift adhesive in 1-2 days. Avoid swallowing solid adhesive after detachment. Not a toxic product.

**INHALATION:** Remove to fresh air. Prolonged or repeated elevated exposure may cause allergic reactions with asthma-like symptoms in sensitive individuals.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

**EYES:** Causes serious eye irritation. Will bond eyelids. Will cause excessive tearing.

**SKIN:** Bonds skin in seconds. May cause skin irritation. May cause sensitization by skin contact. Cyanoacrylates generate heat on polymerization, so very large amounts will burn the skin.

**INGESTION:** Adhesive becomes solid in contact with saliva and may adhere to inside of mouth. Saliva will lift adhesive in 1-2 days. Not a toxic product.

**INHALATION:** Prolonged or excessive inhalation may cause respiratory tract irritation.

**ACUTE TOXICITY:** Avoid exposure to vapor concentration in confined areas.

**CHRONIC EFFECTS:** Frequent or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

## 5. FIRE FIGHTING MEASURES

**FLAMMABLE CLASS:** GHS Flammable liquid, Category 4

**GENERAL HAZARD:** Combustible liquid and vapor. Product polymerized to solid by water.

**EXTINGUISHING MEDIA:** Use dry chemical extinguisher or flush with large amounts of water.

**FIRE FIGHTING EQUIPMENT:** As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Combustible by-products of carbon monoxide/dioxide.

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Polymerize with water. Solid material may be scraped from surface.

**LARGE SPILL:** Polymerize with water. Increase ventilation to area. Solid material may be scraped from surface.

### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** None known.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Use with adequate ventilation. Avoid contact with eyes, skin and clothing.

**HANDLING:** Avoid breathing (dust, vapor, mist, gas). Avoid contact with skin, eyes and clothing. Keep container closed when not in use.

**STORAGE:** Store in a cool place in original container and protect from sunlight. Keep away from sources of ignition.

**STORAGE TEMPERATURE:** Ideal storage: 41-50F (5-10C)

**SHELF LIFE:** One year from date of shipment.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
ETHYL-2-CYANO ACRYLATE	TWA	N/A	N/A	0.2	1.0

**ENGINEERING CONTROLS:** Use only in a well ventilated area. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

**SKIN:** Use Nitrile gloves and aprons to prevent contact. Do not use PVC, Nylon or Cotton materials.

**RESPIRATORY:** Use only in a well-ventilated area. In case of insufficient ventilation, wear suitable respiratory equipment. Recommended: Full-face NIOSH-approved respirator with organic vapor cartridge.

**WORK HYGIENIC PRACTICES:** Avoid direct contact and breathing vapor. Use with adequate ventilation. Wash hands with soap and water after use.

**OTHER USE PRECAUTIONS:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE:** Liquid

**ODOR:** Characteristic odor, intensely irritating.

**ODOR THRESHOLD:** Odor Threshold = 1 ppm

**APPEARANCE:** Clear, opaque, slight

**pH:** Not Applicable.

**PERCENT VOLATILE:** Not Available

**FLASHPOINT AND METHOD:** 80°C (176°F) to 93.4°C (200°F) TAG CC

**FLAMMABLE LIMITS:** Not Available

**AUTOIGNITION TEMPERATURE:** 485°C (905°F)

**VAPOR PRESSURE:** < 0.2 mm Hg

**VAPOR DENSITY:** Not Available

**BOILING POINT:** > 149°C (300°F)

**FREEZING POINT:** Not Available

**MELTING POINT:** Not Determined

**THERMAL DECOMPOSITION:** Not Available

**SOLUBILITY IN WATER:** Insoluble

**EVAPORATION RATE:** Not Established

**DENSITY:** Not Available

**SPECIFIC GRAVITY:** 1.07 g/mL at 25°C

**MOLECULAR WEIGHT:** Not Available

**(VOC):** < 20.000 g/L Per SCAQMD Method 316B.

## **10. STABILITY AND REACTIVITY**

**STABLE:** Yes

**HAZARDOUS POLYMERIZATION:** No

**CONDITIONS TO AVOID:** Avoid temperatures above 176°F (80°C), moisture and alkalines.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Possible polymerization reaction in the presence of water, amines, alkalis and alcohols.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon Dioxide, Carbon Monoxide and other toxic or irritating compounds may form when heated to decomposition. Oxides of nitrogen and probably hydrogen cyanide are also possible.

**INCOMPATIBLE MATERIALS:** Polymerized by water, alcohol, amines, alkaline materials.

**COMMENTS:** REACTIVITY: Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE

Chemical Name	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)
ETHYL-2-CYANO ACRYLATE	> 5000 mg/kg	> 2000 mg/kg

**DERMAL LD<sub>50</sub>:** > 2000 mg/kg

**Notes:** (Estimated)

**ORAL LD<sub>50</sub>:** > 5000 mg/kg

**Notes:** (Estimated)

**INHALATION LC<sub>50</sub>:** Vapors may be irritating. Recommended TWA 0.2ppm.

**EYE EFFECTS:** Bonds skin and eyes in seconds. Eye irritant.

**SKIN EFFECTS:** Irritating to skin. May cause allergic skin reaction with prolonged contact.

### CARCINOGENICITY

**IARC:** None known.

**NTP:** None known.

**OSHA:** None known.

**SENSITIZATION:** Possible skin sensitizer.

### TARGET ORGANS:

<u>Ingredient</u>	Health Effect/ Target Organ
Ethyl cyanoacrylate	Irritant, Allergen/ Respiratory, Skin

## 12. ECOLOGICAL INFORMATION

**GENERAL COMMENTS:** None known.

**Ecotoxicity:** no data available

**Persistence and degradability:** Biodegradable

**Bioaccumulative potential:** No bioaccumulative potential

**Mobility:** Readily absorb into soil

**Other adverse effects:** negligible ecotoxicity

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Dispose of in a manner consistent with federal, state, and local regulations.

## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not restricted

### ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Not restricted

### AIR (ICAO/IATA)

SHIPPING NAME: Not regulated (less than 500 mL). AVIATION REGULATED LIQUID, N.O.S. (ETHYL CYANOACRYLATE), UN3334, 9.

### VESSEL (IMO/MDG)

SHIPPING NAME: Not restricted

### CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: Not restricted

## 15. REGULATORY INFORMATION

### UNITED STATES

#### SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Immediate Health, Delayed Health, Fire, Reactive.

313 REPORTABLE INGREDIENTS: None above reporting de minimus.

#### 302/304 EMERGENCY PLANNING

EMERGENCY PLAN: None above reporting de minimus.

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
ETHYL-2-CYANOACRYLATE	7085-85-0
Polymethyl methacrylate	9011-14-7

TSCA STATUS: All components are listed on or are exempt from listing on the Toxic Substances Control Act.

#### CLEAN AIR ACT

40 CFR PART 68---RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION: Not applicable.

CALIFORNIA PROPOSITION 65: No California Proposition 65 ingredients are known to be in this product.

### CANADA

#### WHMIS HAZARD SYMBOL AND CLASSIFICATION



Combustible  
Liquid



Toxic

Class B3 - Combustible, D2B - Irritant.

**WHMIS CLASS:** B3 - combustible, D2B - irritant.

**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components are listed on or are exempt from listing on the Domestic Substances List.

**16. OTHER INFORMATION**

*NON-WARRANTY: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. Chemical Concepts shall not be liable for any injury, loss, or damage in the use of its chemical products since the conditions of use are beyond our control. In every case we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. Because of changing reporting requirements and other variables it is impossible to guarantee the accuracy of the information contained in this document. It is the responsibility of the user to determine proper personal protection based on the actual condition of use and to comply with all Federal, State, and Local laws and regulations.*



**SECTION 1: IDENTIFICATION**

**PRODUCT IDENTIFIER:**

CHEM-SET QUICK TAC 2  
ACETONE-BASED  
CAA AEROSOL

**RECOMMENDED USE OF THE CHEMICAL:** AEROSOL SPRAY, Adhesive activator

**SUPPLIER DETAILS: MANUFACTURED BY:** Chemical Concepts, Inc.  
410 Pike Road  
Huntingdon Valley, PA. 19006

**Phone:** 800.220.1966

**Fax:** 215.357.2754

**EMERGENCY TELEPHONE NUMBERS:**

INFOTRAC: 1.800.535.5053

**SECTION 2: HAZARDS IDENTIFICATION**

**CLASSIFICATION OF THE SUBSTANCE OF MIXTURE:**

Flammable Aerosols, Category 1  
Gases Under Pressure, Category Compressed Liquid  
Acute Toxicity - Dermal, Category 3  
Serious Eye Damage/Eye Irritation, Category 2A  
Specific Target Organ Toxicity - Single Exposure, Category 3  
Specific Target Organ Toxicity - Repeated Exposure, Category 2



**HAZARD PICTOGRAMS:**

GHS02 Flame, GHS04 Gas Cylinder, GHS06 Skull and Crossbones, GHS07 Exclamation Mark, GHS08 Health Hazard

**SIGNAL WORD:** DANGER

**HAZARD STATEMENTS:**

H222 Extremely flammable aerosol.  
H280 Contains gas under pressure; may explode if heated.  
H311 Toxic in contact with skin.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H373 May cause damage to organs through prolonged or repeated exposure.

**PRECAUTIONARY STATEMENTS:**

**GENERAL & PREVENTION:**

P102 Keep out of reach of children.  
P210 Keep away from heat/sparks/open flames. No smoking.  
P211 Do not spray on an open flame or other ignition source.  
P251 Pressurized container: Do not pierce or burn, even after use.  
P261 Avoid breathing vapor/spray.  
P264 Wash hands thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear eye protection.



**RESPONSE:**

P302+P350 IF ON SKIN: Wash with plenty of soap and water.  
P304+P340 IF INHALED: Remove victim to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTER/doctor if you feel unwell.  
P337+P313 If eye irritation persists: Get medical advice/attention.

**STORAGE:**

P403+P233 Store in a well-ventilated place. Keep container tightly closed when not in use.  
P410+P403 Protect from sunlight. Store in a well-ventilated place.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 degrees C/122 degrees F.

**DISPOSAL:**

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

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#	COMPONENT	CAS#	% by WT.
1	ACETONE	67-64-1	69.0
2	PROPANE	74-98-6	20.4
3	N-BUTANE	106-97-8	9.6
4	N,N-DIMETHYL-P-TOLUIDINE	99-97-8	1.0

**SECTION 4 - FIRST AID MEASURES**

**Inhalation:** If inhaled: Remove victim to fresh air and keep comfortable for breathing.  
**Skin Contact:** If on skin: Wash with plenty of soap and water. Call a poison center/doctor if you feel unwell.  
Remove contaminated clothing and wash before reuse.  
**Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
**Ingestion:** If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting unless directed to do so by medical personnel.

**MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:**

See Section 11 Information on toxicological effects.

**INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT REQUIRED:**

Treat symptomatically.

**SECTION 5 - FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media:** CO2 (Carbon Dioxide), dry chemical, or water fog.  
**Unsuitable Extinguishing Media:** Water spray may be unsuitable. However, if water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible explosion when exposed to extreme heat.  
**Specific Hazards Arising From the Chemical:** Closed containers exposed to heat from fire may build pressure and explode. Products of combustion may include, and are not limited to: oxides of carbon.  
**Special Protective Equipment and Precautions for Fire-Fighters:** Full protective equipment including self-contained breathing apparatus should be used.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Use personal protection recommended in Section 8.  
**Environmental Precautions:** None known.  
**Methods of Containment:** Absorb spilled liquid in suitable material.  
**Methods for Clean-Up:** Use spark-proof tools to sweep or scrape up and containerize.  
**Other Information:** Ensure adequate ventilation.

## **SECTION 7 - HANDLING AND STORAGE**

### **Precautions for Safe Handling:**

Vapors may ignite explosively. Prevent buildup of vapors. Keep from sparks, heat, flame or other heat sources. Do not smoke. Turn off pilot lights, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Do not puncture or incinerate/burn container.

### **Conditions for Safe Storage, Including Any Incompatibilities:**

Protect from sunlight. Do not expose to temperatures exceeding 50 degrees C / 122 degrees F.  
Store in dry, well-ventilated area and in accordance with local, state, and federal regulations.  
Keep container tightly closed when not in use.  
Keep container tightly closed when not in use.

## **SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **CONTROL PARAMETERS**

<u>#</u>	<u>COMPONENT</u>	<u>ACGIH TLV-STEL</u>	<u>ACGIH TLV-TWA</u>	<u>OSHA PEL-TWA</u>
1	ACETONE	750 ppm	500 ppm	1000 ppm
2	PROPANE	1800 ppm	2500 ppm	1000 ppm
3	N-BUTANE	N/E	800 ppm	800 ppm
4	N,N-DIMETHYL-P-TOLUIDINE	N/E	N/E	N/E

**APPROPRIATE ENGINEERING CONTROLS:** Provide adequate ventilation to keep air contamination below OSHA permissible exposure limits and ACGIH TLV exposure levels.

**EYE/FACE PROTECTION:** Wear safety glasses with side shields. Have eye wash facilities immediately available.

**SKIN PROTECTION:** Wear chemical resistant gloves if contact is likely.

**RESPIRATORY PROTECTION:** Use NIOSH-approved air-purifying respirator with organic cartridge or canister if exposure cannot be controlled within applicable limits with ventilation.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>PHYSICAL STATE:</b>	Aerosol - Pressurized Liquid
<b>COLOR:</b>	See product identification
<b>ODOR:</b>	SOLVENT ODOR
<b>ODOR THRESHOLD:</b>	No data available
<b>pH:</b>	No data available
<b>FREEZING POINT:</b>	Not Established (mixture)
<b>BOILING POINT:</b>	N.A. (Pressurized mixture)
<b>FLASH POINT:</b>	<-18C (-0.4F) C.C.
<b>EVAPORATION RATE:</b>	Faster than ether
<b>UPPER FLAMMABILITY LIMIT:</b>	Not Established (mixture)
<b>LOWER FLAMMABILITY LIMIT:</b>	Not Established (mixture)
<b>VAPOR PRESSURE:</b>	Approximately 50 psig @ 10 C (70 F)
<b>SPECIFIC GRAVITY:</b>	0.692
<b>SOLUBILITY (WATER):</b>	Negligible
<b>VOC PERCENT BY WEIGHT:</b>	30.99
<b>HAPS PERCENT BY WEIGHT:</b>	0
<b>MIR NUMBER (EPA AND CA):</b>	

## **SECTION 10: STABILITY AND REACTIVITY CHEMICAL**

**STABILITY:** Stable under normal conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Will not occur.

**CONDITIONS TO AVOID:** Keep away from heat, sparks, and flames.

**INCOMPATIBLE MATERIALS:** Strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** by fire - Carbon Dioxide and Carbon Monoxide

## SECTION 11: TOXICOLOGICAL INFORMATION

**LIKELY ROUTES OF ENTRY:** Skin contact, Inhalation, Eye contact, Ingestion

### **SIGNS AND SYMPTOMS OF EXPOSURE:**

**Skin Contact:** Signs/symptoms may include localized redness, itching, drying and cracking of skin.

**Inhalation:** Intentional concentration and inhalation may be harmful or fatal.

**Eye Contact:** Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

**Ingestion:** Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

### **TARGET ORGANS POTENTIALLY AFFECTED BY EXPOSURE:**

Central nervous system, Kidneys, Lungs, Liver, Eyes, Respiratory Tract, Skin

## **TOXICOLOGICAL DATA:**

#	COMPONENT	LD50 ORAL	LD50 DERMAL
1.	ACETONE	1000	2400
2.	PROPANE	1000	1800
3.	N-BUTANE	N/E	N/E
4.	N,N-DIMETHYL-P-TOLUIDINE	N/E	N/E

## SECTION 12: ECOLOGICAL INFORMATION

No data available.

## SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of product in accordance with Federal, State, and Local regulations.

Do not puncture, incinerate, or place container in trash compactor.

## SECTION 14: TRANSPORTATION INFORMATION

### **GROUND (D.O.T./49 CFR):**

**UN I.D. Number:** UN1950  
**Proper Shipping Name:** AEROSOLS ("FLAMMABLE" is optional to add after AEROSOLS)  
**Transport Hazard Class:** 2.1  
**Packing Group:** - (not applicable)  
**Hazard Label:** Limited Quantity (LTD QTY) label -- see 49 CFR 172.315  
**Shipping Papers Format:** UN1950, AEROSOLS, FLAMMABLE, 2.1 LTD QTY

### **AIR (IATA):**

**UN I.D. Number:** UN1950  
**Proper Shipping Name:** AEROSOLS, FLAMMABLE  
**Transport Hazard Class:** 2.1  
**Packing Group:** - (not applicable)  
**Hazard Labels:** LTD QTY label with "Y" in it, and Flammable Gas Label  
**Packing Instruction:** Y203  
**Shipping Papers Format:** UN1950, AEROSOLS, FLAMMABLE, 2.1

### **WATER (IMDG):**

**UN I.D. Number:** UN1950  
**Proper Shipping Name:** AEROSOLS  
**Transport Hazard Class:** 2.1  
**Hazard Label:** LTD QTY label (see IMDG 3.4.5.1)  
**Packing Instruction:** P003, LP02  
**Ems:** F-D, S-U  
**Stowage and Segregation:** Category A  
**Shipping Papers format:** UN1950, AEROSOLS, 2.1, (-18 C c.c.), LTD QTY  
**Environmental Hazards:** No component of this product is a listed Marine Pollutant (49 CFR 172,101,Appendix B).

## Safety Data Sheet

### Chem-Set CA2400

Revision Number: 1

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Chem-Set CA5  
**Product type:** Cyanoacrylate

Telephone: 800.220.1966 or 267.684.1038  
Website: www.chemical-concept.com

**Company:** Chemical Concepts  
401 Pike Rd  
Huntingdom, Valley, PA 19006  
USA

#### 2. HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

##### HMIS

<b>Physical state:</b>	Liquid	<b>HEALTH:</b>	2
<b>Color:</b>	Clear	<b>FLAMMABILITY:</b>	2
<b>Odor:</b>	Irritating, Sharp	<b>PHYSICAL HAZARD:</b>	1
		<b>Personal Protection:</b>	See Section 8

**WARNING:** BONDS SKIN ON CONTACT  
MAY CAUSE SKIN, EYE AND RESPIRATORY TRACT IRRITATION  
COMBUSTIBLE LIQUID AND VAPOR

**Relevant routes of exposure:** Skin, Inhalation, Eyes

##### Potential Health Effects

**Inhalation:** Exposure to vapors above the exposure limits causes irritation to the respiratory tract, which may lead to difficulty of breathing and tightness of chest.

**Skin contact:** Bonds skin in seconds. May cause skin irritation. Cyanoacrylates have been reported to cause skin allergic reaction but due to the rapid polymerization upon skin contact, an allergic reaction is rare.

**Eye contact:** Irritating to eyes. May cause excessive tearing. On contact, will bond eyelids.

**Ingestion:** Not expected to be harmful by ingestion. On contact, immediate bonding of the mouth may occur. It is almost impossible to swallow.

**Existing conditions aggravated by exposure:** Skin, eye and respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

**See Section 11 for additional toxicological information.**

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	CONCENTRATION (%)
Ethyl 2-cyanoacrylate	7085-85-0	60 – 100

### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If symptoms persist, get medical attention.
<b>Skin contact:</b>	Do not pull bonded skin apart as bonded skin can be easily torn. Soak in warm soapy water while flexing bonded skin followed by gently peeling skin apart. If skin is burnt due to the heat generated during the rapid polymerization of a large drop, seek medical attention. If lips are bonded apply warm water to the lips and encourage the use of saliva to wet the interior. Gently peel or roll the lips apart. Do not use direct opposing force to peel the lips apart.
<b>Eye contact:</b>	Immediately flush with large amounts of water for at least 15 minutes. Get medical attention. If eyes are bonded closed, apply warm water using a wet pad to release eyelashes. Do not force eye open. Cyanoacrylates will cause a lachrymatory effect which will help to debond the adhesive. Keep the eye covered until debonding is completed usually 1- 3 days. Get medical attention to make sure cured adhesive is not trapped behind eyelid.
<b>Ingestion:</b>	Keep individual calm. Make sure breathing passage ways not abstracted. The product will polymerize almost instantaneously bonding the mouth making it almost impossible to swallow. Saliva will debond and separate any cured material in several hours. Prevent patient from swallowing any separated cure material.
<b>Notes to Physician:</b>	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 burn they should be treated symptomatically after adhesive is removed.

### 5. FIRE-FIGHTING MEASURES

<b>Flash point:</b>	80°C– 93.3°C (176°F – 199.94°F) Tagliabue closed cup
<b>Autoignition temperature:</b>	485°C (908°F)
<b>Flammable/Explosive limits-lower %:</b>	Not determined
<b>Flammable/Explosive limits-upper %:</b>	Not determined
<b>Extinguishing media:</b>	Foam, water spray or fog, dry chemical or carbon dioxide.
<b>Special fire fighting procedures:</b>	Fire fighter should wear positive pressure self-contained breathing apparatus.
<b>Unusual fire or explosion hazards:</b>	None
<b>Hazardous combustion products:</b>	Toxic and/or irritating organic vapors may be generated.

### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection equipment recommended in section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

**Environmental precautions:**

Ventilate area. Prevent product from entering drains or waterways.

**Clean-up methods:**

Do not use cloths to mop spills. Flood area with plenty of water to insure complete polymerization. When cured scrape off the floor for disposal. Cured material can be disposed of as non-hazardous waste

**7. HANDLING AND STORAGE**

**Handling:**

Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep away from fabric and paper goods. Contact with these materials may cause rapid polymerization which can generate smoke and strong irritating vapors and cause thermal burns.

**Storage:**

Store away from heat, sparks, flames, or other sources of ignition. For shelf life information contact Permabond customer service at (800)714-0170

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Employees should complete an assessment of all workplaces to determine the need for and selection of proper exposure controls and protective equipment before each task is started.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Ethyl 2-cyanoacrylate	0.2 ppm TWA	None	None	None

**Engineering controls:**

Use positive down draft exhaust ventilation if general ventilation is insufficient to maintain vapor concentrations below established exposure limits.

**Respiratory protection:**

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

**Skin protection:**

Use nitrile gloves and protective clothing as necessary to prevent skin contact. Do not use PVC, nylon, cloth or cotton gloves

**Eye/face protection:**

Safety goggles or safety glasses with side shields or face shield

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state:</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	Sharp irritating
<b>Odor threshold:</b>	Not Available
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	<0.3 mm Hg
<b>Boiling point/range:</b>	>149°C (300°F)
<b>Melting point/range:</b>	Not determined
<b>Specific gravity:</b>	1.05 at 23.9°C (75°F)
<b>Vapor density:</b>	Approximately 3

<b>Flash point:</b>	80°C – 93°C (176°F - 199.94°F )
<b>Flammable/Explosive limits – Lower:</b>	Not determined
<b>Flammable/Explosive limits – upper:</b>	Not determined
<b>Autoignition Temperature:</b>	485°C (905°F)
<b>Evaporation rate:</b>	Not available
<b>Solubility in water:</b>	Polymerizes in water
<b>Partition coefficient (n-octanol/water):</b>	Not applicable
<b>VOC content:</b>	<2 %, 20 grams/liter (Estimated)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable when stored under the recommended storage conditions
<b>Hazardous reactions:</b>	Rapid exothermic reaction will occur in the presence of water, amines, alkalis and alcohols.
<b>Hazardous decomposition products:</b>	Upon heating may decompose to release toxic fumes of nitrogen oxides, carbon monoxide and carbon dioxide
<b>Incompatible materials:</b>	Water, amines, alkalis and alcohols.
<b>Conditions to avoid:</b>	Contact with incompatible materials which may cause spontaneous polymerization

## 11. TOXICOLOGICAL INFORMATION

### Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Ethyl 2-cyanoacrylate	No	No	No

Hazardous components	Health Effects/Target Organs
Ethyl 2-cyanoacrylate	Allergen, Irritant, Respiratory

## 12. ECOLOGICAL INFORMATION

<b>Ecological information:</b>	Unknown
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## 13. DISPOSAL CONSIDERATIONS

### Information provided is for unused product only.

<b>Recommended method of disposal:</b>	Dispose of according to Federal, State and local governmental regulations.
<b>Hazardous waste number:</b>	Not a RCRA hazardous waste.

## 14. TRANSPORT INFORMATION

### U.S. Department of Transportation Ground (49 CFR):

<b>Proper shipping name:</b>	Combustible liquid, n.o.s (cyanoacrylate ester)
<b>Hazard class or division:</b>	Combustible liquid
<b>Identification number:</b>	NA 1993
<b>Packing group:</b>	III
<b>Exceptions:</b>	Unrestricted, (Not more than 450 L)

*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.*

### International Air Transportation (ICAO/IATA):

<b>Proper shipping name:</b>	Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)
<b>Hazard class or division:</b>	9
<b>Identification number:</b>	UN 3334
<b>Packing group:</b>	None
<b>Exceptions:</b>	Primary packs containing less than 500 grams are unregulated by this mode of transportation and may be shipped unrestricted

*Please note that Cyanoacrylates are restricted for air transportation in packages containing more than 500gr. The "Package" is the individual bottle, tube or drum, not a carton containing many bottles. Permabond's 3g, 20gr, 1 ounce(28.4 gr), 1 pound(454gr) and 500gr, are not restricted for air transportation.*

### WaterTransportation (IMO/IMDG):

<b>Proper shipping name:</b>	Unrestricted
<b>Hazard class or division:</b>	None
<b>Identification number:</b>	None
<b>Packing group:</b>	None
<b>Marine pollutant:</b>	None

## 15. REGULATORY INFORMATION

### United States Regulatory Information

<b>TSCA 8 (b) Inventory Status:</b>	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
<b>TSCA 12 (b) Export Notification:</b>	None above the reporting limits.
<b>CERCLA/SARA Section 302 EHS:</b>	None above the reporting limits.
<b>CERCLA/SARA Section 311/312:</b>	Immediate Health, Delayed Health, Fire, Reactive
<b>CERCLA/SARA 313:</b>	None above the reporting limits.
<b>California Proposition 65:</b>	No chemical listed on the California Proposition 65 are known to be present.



### **Canada Regulatory Information**

<b>CEPA DSL/NDSL Status:</b>	All components are listed on or are exempt from listing on the Domestic Substances List.
<b>WHMIS hazard class:</b>	B.3, D.2.B

## **16. OTHER INFORMATION**

This material safety data sheets contains changes from the previous one in section1: Transport Emergency Number was changed.

**ADDITIONAL INFORMATION:** The information given and the recommendations made herein apply to our product(s) alone and are not combined with other product(s). Such are based on our research and on data from other reliable sources and are believed to be accurate. No guaranty of accuracy is made. It is the purchaser's responsibility before using any product to verify this data under their own operating conditions and to determine whether the product is suitable for their purposes.

## SECTION 15: REGULATORY INFORMATION

### International Chemical Inventory

All components of this product are listed on or exempt from the following inventories:

TSCA (United States), CEPA/DSL (Canada), AICS (Australia), IECSC (China)

### SARA Section 313 Toxic Chemicals:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA 313 Title III, Section 313.

#### Pennsylvania Right To Know Components

N,N-dimethyl-p-toluidine CAS #: 99-97-0

#### New Jersey Right to Know Components

N,N-dimethyl-p-toluidine CAS #: 99-97-0

#### California Prop 65 Components

WARNING: This product contains a chemical known to the State of California to cause cancer.

N,N-dimethyl-p-toluidine CAS #: 99-97-0

## SECTION 16: OTHER INFORMATION

REVISION DATE: 06/01/2015

### HMIS & NFPA Hazard Scale:

0=minimal, 1=slight, 2=moderate, 3=serious, 4=severe

HMIS(American Coatings Association's Hazardous Material Identification System)

Health=2 Flammability=4 Physical Hazard=1

NFPA 704(National Fire Protection Association's Hazard Identification Ratings

System): Health = 2

Flammability= 4

Instability = 1

*NON-WARRANTY: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. Adhesive Systems shall not be liable for any injury, loss, or damage in the use of its chemical products since the conditions of use are beyond our control. In every case we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. Because of changing reporting requirements and other variables it is impossible to guarantee the accuracy of the information contained in this document. It is the responsibility of the user to determine proper personal protection based on the actual condition of use and to comply with all Federal, State, and Local laws and regulation.*