

## Material Safety Data Sheet

### Chem-Set CA2400

Revision Number: 1

Issue date: 12/06/13

#### 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  
Huntingdon, 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.



## 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/IMDG)

**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**

**Revised  
May 2015**

*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.*



**Safety Data Sheet**  
acc. to OSHA HCS

Printing Date 11/16/2016

Revision Number 1

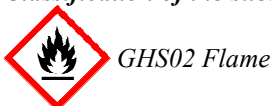
Revision Date 09/23/2015

**1 Identification**

- **Product identifier**
- **Trade name:** *Chem-Set<sup>TM</sup> Stone Tac*
- **Relevant identified uses of the substance or mixture.** *Adhesive*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*Chemical Concepts, Inc.  
410 Pike Road  
Huntingdon Valley, PA. 19006  
Phone: 800.220.1966  
Infotrac: 800.535.5053*

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



*Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.*



*Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.*



*Skin Irrit. 2 H315 Causes skin irritation.  
STOT SE 3 H336 May cause drowsiness or dizziness.*

- **Label elements**
- **GHS label elements** *The product is classified and labeled according to the Globally Harmonized System (GHS).*
- **Hazard pictograms**



- **Signal word** *Danger*
- **Hazard statements**  
*Extremely flammable aerosol. Pressurized container: May burst if heated.  
Causes skin irritation.  
May cause drowsiness or dizziness.  
May be fatal if swallowed and enters airways.*

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

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Trade name: Chem-Set™ Stone Tac

(Contd. of page 1)

- **Precautionary statements**

- Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- Do not pierce or burn, even after use.
- Do not spray on an open flame or other ignition source.
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Wear protective gloves.
- Wash thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- Specific treatment (see on this label).
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Call a POISON CENTER/doctor if you feel unwell.
- If skin irritation occurs: Get medical advice/attention.
- Do NOT induce vomiting.
- IF ON SKIN: Wash with plenty of water.
- Take off contaminated clothing and wash it before reuse.
- Store locked up.
- Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
- Store in a well-ventilated place. Keep container tightly closed.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	4	Fire = 4
PHYSICAL HAZARD	1	Physical Hazard = 1

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### \* 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description: Mixture**

- **Hazardous components:**

64742-49-0	Naphtha (petroleum), hydrotreated light	50-100%
74-98-6	propane	5-20%
106-97-8	butane (containing $\geq 0,1$ % butadiene (203-450-8))	5-20%

### \* 4 First-aid measures

- **Description of first aid measures**

- **After inhalation:**

Call a doctor immediately.

(Contd. on page 3)

USA

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 11/16/2016

Revision Number 1

Revision Date 09/23/2015

**Trade name: Chem-Set™ Stone Tac**

(Contd. of page 2)

- *Overexposure, remove to fresh air and seek medical attention.*
- **After skin contact:**  
*Immediately wash with water and soap and rinse thoroughly.  
If skin becomes irritated seek medical attention.*
- **After eye contact:**  
*Rinse opened eye for 20 minutes under running water. If eye becomes irritated, obtain medical treatment.*
- **After swallowing:** *Do not induce vomiting; immediately call for medical help.*
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*
- **Indication of any immediate medical attention and special treatment needed**  
*No further relevant information available.*

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray.  
Use fire fighting measures that suit the environment.*
- **Special hazards arising from the substance or mixture**  
*Extremely flammable aerosol.  
Contents under pressure. Pressurized container may explode when exposed to heat or flame. During a fire hazardous gases may be formed.*
- **Advice for firefighters**  
*Firefighters use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.*
- **Protective equipment:** *Wear self-contained respiratory protective device.*

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
*Use respiratory protective device against the effects of fumes/dust/aerosol.  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation*
- **Environmental precautions:** *Do not allow to enter sewers/ surface or ground water.*
- **Methods and material for containment and cleaning up:**  
*Dispose of contaminated material as waste in accordance with federal state and local regulations.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents*
- **Reference to other sections**  
*See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.*

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
*Use only in well ventilated areas.  
Open and handle receptacle with care.*
- **Information about protection against explosions and fires:**  
*Do not spray on a naked flame or any incandescent material.*

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Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Empty containers may contain hazardous residuals. Keep away from heat, sparks and open flame. DO NOT cut, drill, puncture, weld or grind on or near full, partially full or empty product containers.

Store in a cool location away from direct heat.

Observe official regulations on storing packagings with pressurized containers.

· **Information about storage in one common storage facility:**

Store as flammable liquid.

Keep away from open flames and high temperatures.

· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

DO NOT expose to heat or temperatures above 50C (122F)

· **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

**74-98-6 propane**

PEL Long-term value: 1800 mg/m<sup>3</sup>, 1000 ppm

REL Long-term value: 1800 mg/m<sup>3</sup>, 1000 ppm

TLV refer to Appendix F in TLVs&BEIs book; NIC-EX

**106-97-8 butane (containing ≥0,1 % butadiene (203-450-8))**

REL Long-term value: 1900 mg/m<sup>3</sup>, 800 ppm

TLV Short-term value: (2370) mg/m<sup>3</sup>, (1000) ppm

NIC-EX

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment (see listings below)**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

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· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses with side shields.



Tightly sealed goggles

Safety glasses with side shields or tightly sealed goggles. Selection of eye protection is based on how the product will be used.

· **Body protection:**

Protective work clothing

Emergency showers and eye wash stations should be available.

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Compressed gas

Color: Not determined.

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point: Undetermined.

Boiling point: -44 °C (-47 °F)

· **Flash point:** -97 °C (-143 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 365 °C (689 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Not determined.

· **Flammable limits:**

Lower: 1.5 Vol %

Upper: 10.9 Vol %

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· <b>Vapor pressure at 20 °C (68 °F):</b>	8300 hPa (6226 mm Hg)
· <b>Specific gravity at 20 °C (68 °F):</b>	0.638 g/cm <sup>3</sup> (5.324 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	Not available
· <b>Solids content:</b>	Not available
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No further information is available.
- **Conditions to avoid** Heat, flames, sparks, hot surfaces, ignition sources.
- **Incompatible materials:** Reacts with oxidizing agents.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Vapors may be irritating to the eyes.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** May cause organ damage through prolonged or repeated exposure.
- **Carcinogenic categories**

#### · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

#### · NTP (National Toxicology Program)

None of the ingredients is listed.

#### · OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** At present there are no ecotoxicological assessments.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Must be specially treated adhering to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- |   |                     |
|---|---------------------|
| · <b>UN-Number</b>  |                     |
| · <b>DOT, IMDG, IATA</b>  | UN1950              |
| · <b>UN proper shipping name</b>  |                     |
| · <b>DOT</b>  | Aerosols, flammable |
| · <b>IMDG</b>   | AEROSOLS            |
| · <b>IATA</b>   | AEROSOLS, flammable |
| · <b>Transport hazard class(es)</b>   |                     |
| · <b>DOT</b>  |                     |
|  |                     |
| · <b>Class</b>  | 2.1                 |
| · <b>Label</b>  | 2.1                 |
| · <b>IMDG, IATA</b>   |                     |
|  |                     |
| · <b>Class</b>  | 2.1                 |
| · <b>Label</b>  | 2.1                 |

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· <b>Packing group</b> · <b>DOT, IMDG, IATA</b>	not regulated
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b> · <b>Danger code (Kemler):</b> · <b>EMS Number:</b> · <b>Stowage Code</b>	Warning: Gases - F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· <b>Segregation Code</b>	
· <b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	Product may be shipped as a Limited Quantity. Until 12/31/2020, the Consumer Commodity, ORM-D, may be used in place of the limited quantity diamond label for packages of UN 1950 Aerosols.
· <b>DOT</b>	Limited Quantity
· <b>IMDG</b>	Limited Quantity
· <b>IATA</b>	Limited Quantity
· <b>UN "Model Regulation":</b>	UN 1950 AEROSOLS, 2.1

### 15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

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**· Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

**· (DSL) Canada Domestic Substance List**

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

**· New Jersey Right-to-Know List:**

74-98-6 propane

106-97-8 butane (containing  $\geq 0,1$  % butadiene (203-450-8))
**· New Jersey Special Hazardous Substance List:**

74-98-6 propane

F4

106-97-8 butane (containing  $\geq 0,1$  % butadiene (203-450-8))

F4

**· Pennsylvania Right-to-Know List:**

74-98-6 propane

106-97-8 butane (containing  $\geq 0,1$  % butadiene (203-450-8))
**· Pennsylvania Special Hazardous Substance List:**

None of the ingredients is listed.

**· Cancerogenity categories**
**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**· TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients listed.

**· MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**· National regulations:**
**· Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Chemical Concepts, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Chemical concepts, Inc or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

**· Creation Date:** 01/08/2003

**· Date of preparation / last revision** 11/16/2016 / -

**· Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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*ACGIH: American Conference of Governmental Industrial Hygienists*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*NFPA: National Fire Protection Association (USA)*  
*HMIS: Hazardous Materials Identification System (USA)*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*NIOSH: National Institute for Occupational Safety*  
*OSHA: Occupational Safety & Health*  
*TLV: Threshold Limit Value*  
*PEL: Permissible Exposure Limit*  
*REL: Recommended Exposure Limit*  
*Flam. Aerosol 1: Aerosols – Category 1*  
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*  
*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*  
*Asp. Tox. 1: Aspiration hazard – Category 1*

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