

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Handibond AC68

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

Use of the substance/mixture : Debonder for Cyanoacrylate Adhesives

1.3. Details of the supplier of the safety data sheet

Chemence, Inc.,
185 Bluegrass Valley Parkway,
Alpharetta, GA 30005 - United States
T 770-664-6624; F 770-664-6620
CS@Chemence-US.com - <http://www.Chemence-US.com>

1.4. Emergency telephone number

Emergency number : 1-800-424-9300; CHEMTREC® International Emergency number: 703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 2 H225
Eye Irrit. 2A H319
STOT SE 3 H336

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS02

GHS07

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H225 - Highly flammable liquid and vapour
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P308+P313 - IF exposed or concerned: Get medical advice/attention
P403+P235 - Store in a well-ventilated place. Keep cool
P501 - Dispose of contents/container to local, regional, national, and international regulations

SECTION 3: Composition/information on ingredients

Substances

Hazardous ingredients:

Name	Product identifier	%	GHS-US classification
acetone	(CAS No) 67-64-1	40 - 70	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Propylene Carbonate	(CAS No) 108-32-7	30 - 60	Eye Irrit. 2A, H319

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove victim from exposure ensuring one's own safety whilst doing so. If unconscious, check for breathing and apply artificial respiration if necessary. Consult a doctor.

Handibond AC68

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

First-aid measures after skin contact	: Rinse skin immediately with plenty of soap and water/shower for 10 minutes or longer. Remove/Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse immediately with plenty of water for at least 15 minutes. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Immediately after ingestion: give lots of water to drink. Do not give milk/oil to drink. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries	: Irritation of the eye tissue.
Symptoms/injuries after inhalation	: May cause drowsiness or dizziness. May cause respiratory irritation.
Symptoms/injuries after skin contact	: May cause irritation to skin.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: Gastrointestinal complaints. Convulsions. Coma.

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray or fog. Carbon dioxide. Dry chemical powder. Foam. Sand.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire. Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Extremely flammable liquid and vapour.
Explosion hazard	: May form flammable/explosive vapour-air mixture.
Reactivity	: No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Do not allow the product to be released into the environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Use special care to avoid static electric charges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing (dust, vapor, mist, gas). Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Avoid all contact with skin, eyes, or clothing.
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6.1.1. For non-emergency personnel

Protective equipment	: Use appropriate personal protection equipment (PPE).
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Evacuate unnecessary personnel. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Use only non-sparking tools.
Methods for cleaning up	: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Use only non-sparking tools and equipment in clean-up procedure.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

Handibond AC68

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No naked lights. No smoking. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/ equipment.
- Storage conditions : Store in a cool, well ventilated and fireproof area. Keep container tightly closed. Keep away from sources of ignition. Keep away from direct sunlight. Prevent the build up of electrostatic charge in the immediate area. Ensure lighting and electrical equipment are not a source of ignition
- Incompatible products : Strong bases. Strong acids. Oxidizing agent. Sources of ignition. Direct sunlight. Heat sources.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Handibond AC68		
USA OSHA	OSHA PEL (TWA) (ppm)	1000 Acetone
USA OSHA	OSHA PEL (STEL) (ppm)	1000 Acetone
USA OSHA	OSHA PEL (Ceiling) (ppm)	750 ppm Acetone
acetone (67-64-1)		
USA ACGIH	ACGIH TWA (ppm)	500 ppm
USA ACGIH	ACGIH STEL (ppm)	500 ppm

8.2. Exposure controls

- Appropriate engineering controls : Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases/vapours may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment.
- Personal protective equipment : Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection. Avoid all unnecessary exposure.
- Materials for protective clothing : Wear fire/flamm resistant/retardant clothing.
- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or safety glasses.
- Skin and body protection : Protective clothing.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate mask.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Colorless to pale yellow liquid.
- Colour : Colourless to light yellow.
- Odour : Ketones.
- Boiling point : 133 – 242°F
- Relative density of saturated gas/air mixture : 2 – 3.52
- Flash point : > - 4°F
- Self ignition temperature : ~ 465 °C
- Specific Gravity : 0.87- 0.95
- Vapor Density : 2.0 – 3.52
- Solubility : In water, material is partially soluble.
Water: 40 - 80 %
- Explosive limits : 1.8 - 12.8 vol %

Handibond AC68

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

9.2. Other information

VOC content : 40% - 80%

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Extremely flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Will not occur. Stable under normal conditions.

10.4. Conditions to avoid

Avoid high temperatures, direct sunlight, open flames, sparks, welding, smoking and other ignition sources. Avoid static charge accumulation and discharge.

10.5. Incompatible materials

Strong bases. Strong acids. Oxidizing agent. Sources of ignition. Direct sunlight. Heat sources.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

acetone (67-64-1)	
LD50 oral rat	5800 mg/kg (Rat; Experimental value,Rat; Experimental value)
LD50 dermal rabbit	20000 mg/kg (Rabbit; Experimental value,Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	71 mg/l/4h (76 mg/l/4h; Rat; Rat; Experimental value; Experimental value,76 mg/l/4h; Rat; Rat; Experimental value; Experimental value)
LC50 inhalation rat (ppm)	30000 ppm/4h (Rat; Experimental value,Rat; Experimental value)
Propylene carbonate (108-32-7)	
LD50 oral rat	> 20000 mg/kg (Rat)
LD50 dermal rabbit	> 24000 mg/kg (Rabbit)

SECTION 12: Ecological information

12.1. Toxicity

acetone (67-64-1)	
LC50 fishes 1	6210 mg/l (96 h; Pimephales promelas; Nominal concentration)
EC50 Daphnia 1	8800 mg/l (48 h; Daphnia pulex)
LC50 fish 2	5540 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
TLM fish 1	13000 ppm (96 h; Gambusia affinis; Turbulent water)
TLM fish 2	> 1000 ppm (96 h; Pisces)
Threshold limit other aquatic organisms 1	3000 mg/l (Plankton)
Threshold limit other aquatic organisms 2	28 mg/l (Protozoa)
Threshold limit algae 1	7500 mg/l (Scenedesmus quadricauda; pH = 7)
Threshold limit algae 2	3400 mg/l (48 h; Chlorella sp.)
Propylene carbonate (108-32-7)	
LC50 fishes 1	5300 mg/l (96 h; Leuciscus idus)
EC50 Daphnia 1	> 1000 mg/l (48 h; Daphnia magna; GLP)
Threshold limit algae 1	900 mg/l (72 h; Scenedesmus subspicatus; Biomass)

12.2. Persistence and degradability

Handibond AC68	
Persistence and degradability	Not established.
acetone (67-64-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.43 g O ₂ /g substance
Chemical oxygen demand (COD)	1.92 g O ₂ /g substance

Handibond AC68

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

acetone (67-64-1)	
ThOD	2.20 g O ₂ /g substance
BOD (% of ThOD)	(20 day(s)) 0.872
Propylene carbonate (108-32-7)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.046 g O ₂ /g substance
Chemical oxygen demand (COD)	1.29 g O ₂ /g substance

12.3. Bioaccumulative potential

Handibond AC68	
Bioaccumulative potential	Not established.
acetone (67-64-1)	
BCF fish 1	0.69 (Pisces)
BCF other aquatic organisms 1	3
Log Pow	-0.24 (Test data)
Bioaccumulative potential	Not bioaccumulative.
Propylene carbonate (108-32-7)	
Log Pow	-0.48 - -0.41 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

acetone (67-64-1)	
Surface tension	0.0237 N/m

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not discharge into drains or the environment.
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT
Transport document description : UN1090 Acetone, 3, II
UN-No.(DOT) : 1090
DOT NA no. : UN1090
DOT Proper Shipping Name : Acetone
Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT) : 3 - Flammable liquids



Packing group (DOT) : II - Medium Danger
DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202

Handibond AC68

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT Packaging Bulk (49 CFR 173.xxx) : 242

Additional information

Other information : No supplementary information available.

ADR

Packing group : II
Class : 3 - Flammable liquids
Hazard identification number : 33
Classification code : F1
Danger labels (ADR) : 3 - Flammable liquids
Proper shipping name : Acetone

Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Air transport

DOT Quantity Limitations Passenger : 5 L
Aircraft/rail (49 CFR 173.27)
DOT Quantity Limitations : 60 L
Cargo aircraft only (49 CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

Handibond AC68

SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard
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acetone (67-64-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	5000 lb
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Propylene carbonate (108-32-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Acetone (67-64-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification

Class B Division 2 - Flammable Liquid Class D Division 2
Subdivision B - Toxic material causing other toxic effects

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225
Eye Irrit. 2A H319
STOT SE 3 H336

Classification according to Directive 67/548/EEC or 1999/45/EC

F; R11
Xi; R36
R66
R67

15.2.2. National regulations

Acetone (67-64-1)

Listed on the Canadian Ingredient Disclosure List

Handibond AC68

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

15.3. US State regulations

acetone (67-64-1)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixturejs, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H-phrases:

Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur
Flammability : 3 Serious Hazard
Physical : 0 Minimal Hazard

SDS US (GHS HazCom 2012)

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