



To Our Customers:

The attached Safety Data Sheet (SDS) was prepared by the vendor of the product you purchased through one of our divisions. We used the manufacturer's electronic document directly or scanned a paper copy and generated a file for our automated SDS delivery system.

All statements, technical information, and recommendations contained therein are solely that of the manufacturer of the product. We at Zep Inc. did not verify the accuracy and completeness of the statements and do not warrant or guarantee the information. We provide vendor SDSs to assist our customers in their compliance efforts. The attached document is in compliance with one of the respective country regulatory requirements noted below:

The OSHA Hazard Communication Standard (in the United States)
The Hazardous Products Regulations (in Canada)

We made every effort to deliver all of the information prepared by the manufacturer. We cannot anticipate all conditions under which this information will be used. If you have any questions about the statements on the SDS, please contact the company shown on the document.

Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team
Zep Inc.

SAFETY DATA SHEET



Date Prepared: 04/07/2015
 SDS No: 0007-04-2015 (US)
 Date-Revised: 06/25/2015
 Revision No: 4

ThreeBond 1217H

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ThreeBond 1217H
PRODUCT DESCRIPTION: One component silicone rubber compound
PRODUCT CODE: ThreeBond 1217H

MANUFACTURER

ThreeBond International, Inc.
 6184 Schumacher Park Drive
 West Chester, OH 45069
Emergency Phone: (513) 779-7300

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (Domestic North America): (800) 424 - 9300
CHEMTREC (International): (703) 527 - 3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS**Health:**

Skin Sensitization, Category 1B
 Serious eye damage/Eye irritation, Category 1
 Specific target organ toxicity after repeated exposure: (Hematopoietic System), Category 2

GHS LABEL

Exclamation
mark



Health
hazard



Corrosion

SIGNAL WORD: DANGER**HAZARD STATEMENTS**

H318: Causes serious eye damage.
 H317: May cause an allergic skin reaction.
 H373: May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

Precautionary statement(s)**Prevention:**

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P260: Do not breathe dust/fume/gas/mist/vapors/spray.

Response:

P302+P352: IF ON SKIN: Wash with plenty of water.
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

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P321: Specific treatment (see Response on this label).

P362+P364: Take off contaminated clothing and wash it before reuse.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a poison center/doctor/medical professional.

P314: Get medical advice/attention if you feel unwell.

Disposal:

P501: Dispose of contents/container to appropriate facility according to local regulations.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Gray paste

IMMEDIATE CONCERNS: Causes irritation or damage to eyes.

POTENTIAL HEALTH EFFECTS

EYES: Corrosive to the eyes and may cause severe damage including blindness.

SKIN: Repeated or prolonged contact with skin may cause slight irritation leading to dermatitis. Product contains oximes which are possible skin sensitizers.

SKIN ABSORPTION: MEKO: May be harmful if absorbed through the skin.

INGESTION: Small amounts should not cause injury. Swallowing large amounts may cause slight injury.

INHALATION: Overexposure to vapors may cause drowsiness may cause drowsiness, blood and liver injury and may irritate eyes, nose and throat.

CARCINOGENICITY: Suspected of causing cancer (MEKO). The following material (Crystalline silica, Titanium dioxide) is embedded (bound) in the product and not available as respiratory dusts. When used as intended or as supplied, the product will not pose hazards.

ROUTES OF ENTRY: Eyes, skin, inhalation, ingestion or absorption

SENSITIZATION: Sensitization possible through skin contact.

HEALTH HAZARDS: Coughing. Dermatitis. Rash. Upper respiratory tract irritation. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause an allergic skin reaction.

COMMENTS: Methyl ethyl ketoxime (MEKO) is formed upon contact with water or humid air. Male rodents exposed to MEKO vapor throughout their lifetime developed liver cancer. Additional testing is being planned by the MEKO supplier to determine any relevance to humans. Until more data is known, exposure levels should be maintained as low as achievable. Also, this product contains crystalline silica, fumed silica, Titanium dioxide, Carbon black which are considered a hazard by inhalation with dust. Crystalline silica is classified as an agent which is a probable carcinogen in humans. But, this product does not fall under the dust inhalation hazard or the carcinogen classification since it does not generate dust under normal handling conditions.

3. COMPOSITION / INFORMATION ON INGREDIENTS

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Chemical Name	Wt. %	CAS
Calcium carbonate	40 - 50	471-34-1
2-Butanone, O, O', O''-(ethenylsilyldiyl) trioxime	< 5	2224-33-1
Silane, dichloromethyl-, reaction products with silica	1 - 2	68611-44-9
Toluene	< 1	108-88-3
Poly[oxy(methyl-1,2-ethanediy)], a-[3-[methylbis[(1-methylethenyl)oxy]silylpropyl]-w-[3-[methylbis[(1-methylethenyl)oxy]silyl]propoxyl]-	< 0.5	76735-64-3
Carbon black	< 0.1	1333-86-4

COMMENTS: Methyl ethyl ketoxime (MEKO #96-29-7); cracked gas

4. FIRST AID MEASURES

EYES: Immediately flush with water for 15 minutes.

SKIN: Remove from skin and immediately flush with water for 15 minutes. Get medical attention if irritation or ill effects develop.

INGESTION: Immediately rinse mouth well with water and seek medical treatment.

INHALATION: Remove to fresh air. Get medical attention if ill effects occur.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Causes serious eye damage.

SKIN: May cause an allergic skin reaction.

INGESTION: Expected to be a low ingestion hazard.

INHALATION: No adverse effects due to inhalation are expected.

ACUTE TOXICITY: No data as a product.

CHRONIC EFFECTS: Oximes may cause skin sensitization. Overexposure to vapors may cause drowsiness, blood and liver injury, and may irritate eyes, nose and throat.

NOTES TO PHYSICIAN: Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Wash contaminated clothing before reuse.

COMMENTS: *After first aid, get appropriate in-plant, paramedic, or community medical support.*

5. FIRE FIGHTING MEASURES

GENERAL HAZARD: By heating and fire, harmful vapors/gases may be formed. Nitrogen oxides. (corrosive)

EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical powder, foam or water fog.

OTHER CONSIDERATIONS: By heating and fire, harmful vapors/gases may be formed. Nitrogen oxides. (corrosive)

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

FIRE FIGHTING EQUIPMENT: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode/flame retardant coat/helmet/gloves/rubber boots.

FIRE EXPLOSION: No unusual fire or explosion hazards noted.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal breakdown of this product during fire or very high heat conditions may evolve the following hazardous decomposition products: carbon oxides and traces of incompletely burned carbon compounds, metal oxides, silicon dioxide, nitrogen oxides, and formaldehyde.

ThreeBond 1217H**6. ACCIDENTAL RELEASE MEASURES**

SMALL SPILL: Absorb with dry sand, soil, sawdust, cloth, etc., then place in a sealable container.

LARGE SPILL: Dike and prevent overflow. Guide to a safe place then dispose properly.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Do not allow product to flow into rivers or affect the environment.

GENERAL PROCEDURES: All ignition sources should be quickly removed (no smoking in the vicinity, prohibit sparks or fire sources).

RELEASE NOTES: Keep spilled material from entering storm drains, sewers or other environmental mediums.

SPECIAL PROTECTIVE EQUIPMENT: Wear appropriate personal protection equipment to avoid contact to eyes, skin and inhalation.

COMMENTS: Disposal of clean-up materials may be governmentally regulated. Observe all applicable local, state and federal waste management regulations.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Take precaution against fire.

HANDLING: Avoid contact with eyes and skin. Wear appropriate personal protection. Wash thoroughly after handling. Avoid prolonged exposure.

STORAGE: Keep container closed and away from water or moisture.

STORAGE TEMPERATURE: 0°C Minimum to 30°C Maximum

COMMENTS: Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full. Do not mix this product with other cleaning agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³
Calcium carbonate	TWA				mg/m ³ (total dust)
	STEL	Not Established	Not Established	Not Established	
2-Butanone, O, O', O''-(ethenylsilyldi)ne trioxime	TWA	^[1]	^[1]		
Silane, dichloromethyl-, reaction products with silica	TWA		mg/m ³ (total dust)		mg/m ³
	STEL	Not Established		Not Established	
Toluene	TWA	100 ppm		50 ppm	
	STEL	150 ppm	375 mg/m ³		
Carbon black	TWA	^[2]	3.5 mg/m ³ ^[2]		(3.5) mg/m ³
OSHA TABLE COMMENTS: 1. See: Methyl Ethyl Ketoxime (MEKO) data. 2. Inhalable fraction					

ENGINEERING CONTROLS: Provide general or local ventilation systems to maintain airborne concentrations below OSHA PELs. Local ventilation is preferred because contaminant dispersion into the work area by controlling it at its source.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses. Wear splash goggles if the potential for splashing or spraying exists.

SKIN: Wear personal protection aprons, boots, gloves (impervious) if necessary. Do not work with short sleeve shirts.

RESPIRATORY: Respiration protection must be worn whenever the WEL levels have been exceeded. Use filter type A according to EN 14387.

PROTECTIVE CLOTHING: Wear solvent resistant or other impervious gloves.

WORK HYGIENIC PRACTICES: Wash hands before eating, smoking or using restroom. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

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

COMMENTS: Product generates Methyl ethyl ketoxime (MEKO) upon contact with water or humid air.

MEKO exposure limits: TWA, 3 ppm from Vendor Guide (United States)

AIHA TWA, 10 ppm, STEL, 10 ppm (Workplace Environmental Exposure Level, United States)

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ThreeBond 1217H**ODOR:** Oxime**ODOR THRESHOLD:** No information available.**APPEARANCE:** Gray paste.**pH:** Not available.**PERCENT VOLATILE:** Not applicable.**FLASHPOINT AND METHOD:** 73°C (163.4°F) Closed Cup**Notes:** Does not sustain combustion.**FLAMMABLE LIMITS:** No information available.**AUTOIGNITION TEMPERATURE:** No data available.**VAPOR PRESSURE:** Negligible (25° C)**VAPOR DENSITY:** > 1 (Air = 1)**BOILING POINT:** Not applicable.**FREEZING POINT:** Not determined.**MELTING POINT:** Not determined.**SOLUBILITY IN WATER:** Not soluble.**EVAPORATION RATE:** less than 1 (Butyl acetate=1)**DENSITY:** No information available.**VISCOSITY #1:** to 275 Pa·s at 23°C**(VOC):** < 2.500 % EPA Method 24, weight loss determination**COEFF. OIL/WATER:** No information available.**10. STABILITY AND REACTIVITY****REACTIVITY:** No information available.**HAZARDOUS POLYMERIZATION:** Polymerization will not occur.**STABILITY:** Stable at room temperature in closed containers under normal storage and handling conditions.**CONDITIONS TO AVOID:** None known.**POSSIBILITY OF HAZARDOUS REACTIONS:** Contact with water, moisture or humid air causes curing and MEKO vapors to form gradually.**HAZARDOUS DECOMPOSITION PRODUCTS:** Water, moisture or humid air can cause Methyl ethyl ketoxime. Thermal breakdown of this product during fire or very high heat condition may evolve the following hazardous decomposition product: Carbon oxides and traces of incompletely burned carbon compounds. Silicone dioxide, Nitrogen, Formaldehyde.**INCOMPATIBLE MATERIALS:** Strong oxidizing agents (water, moisture).**11. TOXICOLOGICAL INFORMATION****ACUTE**

ThreeBond 1217H

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Toluene	5580 rat (mg/kg)	12198 Rabbit/mg/kg	12500 to 28800 mg/m ³ (rat)
Carbon black	> 8000 rat (mg/kg)	3000 Rabbit/mg/kg	

DERMAL LD₅₀: > 1000 mg/kg (rabbit male and female) (MEKO)

ORAL LD₅₀: > 900 ml/kg (rat) (MEKO decomposition product)

INHALATION LC₅₀: > 4.83 mg/l (rat)(MEKO decomposition product)

NOTES: Severe eye irritation. Symptoms may include stinging/pain, tearing, redness, swelling and blurred vision.

EYE EFFECTS: Causes serious eye damage.

SKIN EFFECTS: May cause an allergic skin reaction.

CHRONIC: No data as a product.

CARCINOGENICITY

Chemical Name	IARC Status	Other
Carbon black	2B	ACGIH: A4

IARC: Overall Evaluation of Carcinogenicity:

Carbon black dust (CAS# 1333-86-4) 2B Possibly carcinogenic to humans

Crystalline silica dust (68611-44-9) 1 Carcinogenic to humans

Toluene (CAS# 108-86-3) 3 Not classified as to carcinogenicity to humans

OSHA: Not listed.

REPRODUCTIVE EFFECTS: Not available.

TARGET ORGANS: Male rodents exposed to Methyl ethyl ketoxime (MEKO) vapors at high concentration throughout their lifetime developed liver cancer. But relevance to humans is uncertain now.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No information available.

ECOTOXICOLOGICAL INFORMATION: No information available.

BIOACCUMULATION/ACCUMULATION: No information available.

AQUATIC TOXICITY (ACUTE): Methyl ethyl ketoxime (CAS #96-29-7)

48-HOUR EC₅₀: > 1000 mg/l, 48 hr

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your licensed waste contractor for detailed recommendations.

PRODUCT DISPOSAL: ThreeBond1217H is a non-hazardous substance per DOT and EPA.

EMPTY CONTAINER: All containers should be thoroughly emptied before disposal.

ThreeBond 1217H**14. TRANSPORT INFORMATION****DOT (DEPARTMENT OF TRANSPORTATION)****PROPER SHIPPING NAME:** Not restricted by DOT.**OTHER SHIPPING INFORMATION:** This product is not intended to be transported in bulk.**AIR (ICAO/IATA):** Not an IATA controlled material.**VESSEL (IMO/IMDG):** Not an IMDG controlled material.**15. REGULATORY INFORMATION****UNITED STATES****CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**

Chemical Name	Wt. %
Toluene	< 1

TSCA (TOXIC SUBSTANCE CONTROL ACT)**TSCA REGULATORY:** All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.**TSCA STATUS:** All ingredients are in compliance with the TSCA.**OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)****29 CFR1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS:**

Not listed.

STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
Toluene	This product contains a component or components listed on the Massachusetts Right to Know list of hazardous substances. This product contains a component or components listed on the Michigan Critical Materials list. This product contains a component or components listed on the New Jersey Right to Know list of hazardous chemicals. This product contains a component or components listed on the Pennsylvania Right to Know list of hazardous substances.
Carbon black	This product contains a component or components listed on the Massachusetts Right to Know list of hazardous substances. This product contains a component or components listed on the Pennsylvania Right to Know list of hazardous substances.

CALIFORNIA PROPOSITION 65: WARNING: This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Chemical Name	Wt. %	Listed
Toluene	< 1	• Developmental Toxicity
Carbon black	< 0.1	Cancer

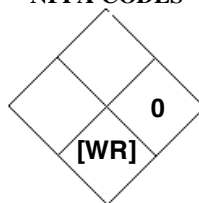
16. OTHER INFORMATION**Date-Revised:** 06/25/2015

ThreeBond 1217H

REVISION SUMMARY: This MSDS replaces the 04/09/2015 MSDS. Revised: **Section 9:** COEFF. OIL/WATER, DENSITY, FLAMMABLE LIMITS, ODOR THRESHOLD. **Section 10:** STABLE.

HMIS RATING

HEALTH	*	3
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		C

NFPA CODES

MANUFACTURER DISCLAIMER: To the best of our knowledge, the information contained herein is accurate.

However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.