

# MATERIAL SAFETY DATA SHEET

## PATCH & REPAIR KIT PART B

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** PATCH & REPAIR KIT - Part B  
**PRODUCT NUMBER:** CP-0061, CP-0076  
**CHEMICAL FAMILY:** Plasticized Gypsum Composition

#### MANUFACTURER/SUPPLIER

Castagra Products, Inc.  
1450 Vassar Street  
Reno, NV 89502  
USA

#### 24 HR EMERGENCY TELEPHONE NUMBERS

Emergency Contact Number: CHEMTREC 1-800-424-9300 / +1 703-527-3887  
Non-Emergency Phone Number: +1 888-388-2935

### 2. HAZARDS IDENTIFICATION

**Color:** Dark Brown  
**PHYSICAL STATE:** Liquid  
**ODOR:** Musty, almost odorless



#### EMERGENCY OVERVIEW

**IMMEDIATE CONCERNS:** Health concern; Toxic gases/fumes may be given off during burning or thermal decomposition. Combustible liquid under extreme heat or when contaminated with water. May aggravate asthma, respiratory disorders, skin allergies, and eczema.

#### POTENTIAL HEALTH EFFECTS

**EYES:** Causes irritation to eyes.  
**SKIN:** Causes irritation to skin. Skin sensitizer.  
**INGESTION:** Harmful.  
**INHALATION:** May cause lung damage.  
**CARCINOGENICITY:** Not listed by NTP, IARC, ACGIH, or OSHA as a carcinogen.  
**ROUTES OF ENTRY:** Eyes, Skin, Mucous Membranes, Ingestion  
**TARGET ORGAN STATEMENT:** Eyes, Skin, Inhalation

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	%W.t	#CAS	#EINECS
Diphenylmethane Diisocyanate, isomers and homologues	99 – 100	9016-87-9	N/A
4,4' -Methylenediphenyl diisocyanate	40 – 50%	101-68-8	N/A

\*CAS 101-68-8 is a isomer of CAS 9016-87-9

#### 4. FIRST AID MEASURES

**EYES:** Flush eye(s) for 15 minutes or more; if irritation persists, consult a physician (preferably an eye specialist) and show MSDS.

**SKIN:** Remove contaminated clothing immediately. Wash area thoroughly with a polyglycol-based skin cleanser or corn oil. Seek medical attention if symptoms are present after washing.

**INGESTION:** Seek medical attention immediately. Do not induce vomiting.

**INHALATION:** Remove individual from site of exposure and place in fresh air. Seek medical attention if breathing is difficult.

**ADDITIONAL INFO:** May cause asthma-like symptoms. Inhaled beta2 agonist and oral or parenteral corticosteroids are recommended. Consult a physician. Any additional symptoms and effects are described in Section 11.

#### 5. FIRE FIGHTING MEASURES

**FLASHPOINT AND METHOD:** >204°C Closed Cup Method

**AUTOIGNITION TEMPERATURE:** Not Determined

**EXTINGUISHING MEDIA:** Foam, carbon dioxide, dry powder. Avoid Water.

**EXPLOSION HAZARDS:** No data available.

**FIRE FIGHTING PROCEDURES: Reacts with water.** If water is used as extinguishing agent, use large amounts of water and wear protection against isocyanate and nitrogen oxide fumes. Wear positive pressure self-contained breather apparatus and full protective clothing.

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

**UNUSUAL FIRE & EXPLOSION HAZARDS:** Evacuate persons from down-wind of site. Do not re-seal contaminated containers.

**HAZARDOUS COMBUSTION PRODUCTS:** Isocyanate vapors, oxides of carbon and nitrogen, traces of hydrogen cyanide.

#### 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Keep upwind of spill. Absorb onto mineral absorbent and place into dry open top containers. Neutralize with 5% soda ash solution, 10 parts solution to 1 part waste. Let stand 48 hours prior to disposal. Flush spill area with large volumes of water and contain.

**LARGE SPILL:** Keep upwind of spill. Prevent from entering into soil, ditches, sewers, waterways, and/or groundwater. Absorb with material such as sand, dirt, vermiculite, or clay. Not cement powder. Collect in suitable and properly labeled open containers, not sealed and neutralize as in small spills.

**RELEASE NOTES:** In case of accident or road spill notify:

\*CHEMTREC (U.S.) (800) 424-9300

\*CHEMTREC, autres pays: (Code international) +1-202-483-7616

#### 7. HANDLING AND STORAGE

**HANDLING:** Read label and SDS prior to handling. Provide suitable extraction/ventilation at processing machines. Keep away from all sources of ignition – No Smoking. Cool endangered containers by water spray.

**STORAGE:** Keep container in cool well-ventilated place, maximum 41°C. Keep containers tightly closed. Do not store product contaminated with water to prevent potential hazardous reaction. Product degradation to an organic tin salt may occur upon exposure to direct sunlight.

**STORAGE PERIOD:** 24 Months

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE LIMITS

	TWA ppm	OSHA PEL mg/m <sup>3</sup>	ACGIH TLV ppm	OEL FOURNISSEUR ppm
4,4-Methylene diphenyl diisocyanate	0.005	0.2	0.005	0.003

**ENGINEERING CONTROLS:** Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. If local exhaust is not available, general (mechanical) ventilation is acceptable, if exposure is maintained below the TLV.

### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Safety Goggles recommended for use.

**SKIN:** PVC gloves are recommended for use. Impervious footwear recommended.

**RESPIRATORY:** In case of insufficient ventilation, respiratory protective equipment: Cartridge for organic gases and vapors.

**PROTECTIVE CLOTHING:** Impermeable protective clothing is recommended.

**WORK HYGIENIC PRACTICES:** Avoid breathing vapors. Do not eat, drink, or smoke in work area. Wash hands thoroughly after use.

**OTHER USE PRECAUTIONS:** None

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**ODOR:** Musty, almost odorless

**COLOR:** Dark brown

**pH:** Not Applicable

**PERCENT VOLATILE:** Not Determined

**VAPOR DENSITY:** ~8.5 (air=1)

**BOILING POINT:** Decompresses prior to boiling

**EVAPORATION RATE:** Slow

**FREEZING POINT:** Forms crystals below 10°C

**SOLUBILITY IN WATER:** Insoluble – reacts slowly with water

**PARTITION COEFFICIENT, n-octanol/water:** Reacts with water

**VAPOR PRESSURE:** <0.0001 mmHg @ 25°C

**SPECIFIC GRAVITY:** 1.24 @ 25°C

**DYNAMIC VISCOSITY:** 150-220 cPs @ 25°C

**WEIGHT PER VOLUME:** 1234 kg/m<sup>3</sup>

## 10. STABILITY AND REACTIVITY

**STABLE:** Chemically stable under normal and anticipated storage and handling conditions.

**HAZARDOUS POLYMERIZATION:** May be initiated by metal salts, strong bases or temperatures in excess of 175°C. May be catalyzed by strong bases or water.

**CONDITIONS TO AVOID:** 21°C > 41°C. Avoid moisture. Avoid elevated temperatures. Pressure may build rapidly.

**INCOMPATIBLE MATERIALS:** Water, acids, ammonia, alcohols, alkalis, surfactants, bases, metal compounds, moist air, strong oxidizers. Reactions may be violent. Reacts with water to form heat, carbon dioxide, and insoluble urea. Water may cause pressure build-up in sealed containers. Increased temperature will speed up reactions. Avoid moist organic absorbent materials.

## 11. TOXICOLOGICAL INFORMATION

**ACUTE ORAL:** LD50: >2,000mg/kg [Rat]

**EYE EFFECTS:** The toxic effects of this material are not known.

**SKIN EFFECTS:** LD50: >9,4000mg/kg [Rabbit]

**INHALATION EFFECTS:** LD50: 490mg/m<sup>3</sup>, 4h [Rat]

**INHALATION EFFECTS (Repeated dose toxicity):**

90 days; NOAEL: 1mg/m<sup>3</sup> [Rat, 6hrs/day 5 days/week]

2 years; NOAEL: 0.2 mg/m<sup>3</sup> [Rat, 6hrs/day 5 days/week]

Irritation to lungs and nasal cavity.

**INGESTION EFFECTS:** LD50: >10,000mg/kg [Rat]

**MUTAGENICITY:** Negative [Salmonella typhimurium, Metabolic activation:with/without]

**DEVELOPMENTAL TOXICITY:** No effect, Fetotoxicity seen only with maternal toxicity. [Rat, inhalation, gestation days 6-15, 6hrs/day: 12mg/m<sup>3</sup> (Maternal 4mg/m<sup>3</sup>)]

**GENETIC TOXICOLOGY:** Inconclusive. Weakly positive in some i-vitro studies; others were negative. Animal mutagenicity studies were predominately negative.

**CARCINOGENICITY:** Lung tumors [Rat, inhalation, 2 years, 6hrs/day, 5 days/week] Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects.

## 12. ECOLOGICAL INFORMATION

**GENERAL COMMENTS:** Almost non-toxic to aquatic organisms on an acute basis. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

### ENVIRONMENTAL DATA:

**Fish Acute and Prolonged Toxicity:** LC50: >1,000mg/l [Danio rerio (zebra fish), static test 96h]

**Aquatic Invertebrate Acute Toxicity:** EC50: >1,000mg/l [Daphnia magna (water flea), static test 24h]

**Aquatic Plant Toxicity:** NOEC: 1,640mg/l [Desmodesmus subspicatus (green algae), static test-growth rate inhibition 72h]

**Micro-organism Toxicity:** EC50: >100mg/l [OECD 209 Test, activated sludge, Respiration inhibition 3h]

**Soil Dwelling Organisms Toxicity:** EC50: >1,000mg/l [Eisenia fetida (earthworms), 14d]

### **BIOACCUMULATIVE POTENTIAL:**

**Bioaccumulation:** Low Potential; BCF<100. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Bioconcentration Factor (BCF):** 92 [Cyprinus carpio (Carp)]

**Mobility in Soil:** Movement is limited.

**Biodegradation:** OECD 302 C Test, 28d = 0%. Material reacts with water to form insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and related diisocyanates.

### **13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:** Dispose of in accordance with local, state, and federal regulations.

**PRODUCT DISPOSAL:** Do not dump into any sewers, on the ground, or into any body of water.

In accordance with local authority regulations, take to a special waste incineration plant.

**EMPTY CONTAINER DISPOSAL:** If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

### **14. TRANSPORT INFORMATION**

#### **NON-BULK (I.E. 55 GAL DRUM, 1 GAL JUG) – DOT (DEPARTMENT OF TRANSPORTATION)**

NOT REGULATED

#### **BULK (I.E. TANKER, ISO TANK) – DOT (DEPARTMENT OF TRANSPORTATION)**

**PROPER SHIPPING NAME:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

**TECHNICAL NAME:** MDI

**PRIMARY HAZARD CLASS/DIVISION:** 9

**UN/NA NUMBER:** 3082

**PACKING GROUP:** III

**REPORTABLE QUANTITY:** 5000lb

#### **IMDG**

NOT REGULATED

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

**Product Name:** Polymethylene polyphenyl isocyanate

**Ship Type:** 2

**Pollution Category:** Y

#### **ICAO/IATA**

NOT REGULATED

#### **ADDITIONAL INFORMATION**

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## 15. REGULATORY INFORMATION

### UNITED STATES:

#### OSHA HAZARD COMMUNICATION STANDARD

This product is Hazardous as defined by the OSHA Hazard Communication Standard.

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

#### 311/312 HAZARD CATEGORIES:

**FIRE:** NO

**REACTIVITY:** YES

**ACUTE HEALTH HAZARD:** YES

**CHRONIC HEALTH HAZARD:** YES

#### 313 REPORTABLE INGREDIENTS:

Component	%W.t	#CAS
Diphenylmethane Diisocyanate, isomers and homologues	99 – 100	9016-87-9
4,4' –Methylenediphenyl diisocyanate	40 – 50	101-68-8

#### PENNSYLVANIA RIGHT-TO-KNOW

Component	%W.t	#CAS
Diphenylmethane Diisocyanate, isomers and homologues	99 – 100	9016-87-9
4,4' –Methylenediphenyl diisocyanate	40 – 50	101-68-8

#### COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, & LIABILITY ACT OF 1980, SECTION 103 (CERCLA)

Component	%W.t	#CAS
Diphenylmethane Diisocyanate, isomers and homologues	99 – 100	9016-87-9
4,4' –Methylenediphenyl diisocyanate	40 – 50	101-68-8

#### CALIFORNIA PROPOSITION 65

This product contains no listed substances known to the State of California to cause cancer, birth defects, or other reproductive harm, at levels which would require a warning under the statute.

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

**TSCA REGULATORY:** All intentional ingredients are listed in the TSCA Inventory.

## 16. OTHER INFORMATION

**PREPARED BY:** CASTAGRA PRODUCTS, INC.

**DATE:** November 1, 2022

**MANUFACTURER DISCLAIMER:** The information contained herein is based on data believed to be reliable by CASTAGRA PRODUCTS, INC. It is true and accurate to the best of our knowledge, but is not intended to be all inclusive. Users should consider this information as a supplement to other information gathered by them and must make their own determination of suitability and completeness to assure proper safe use and disposal of these materials.