



# SAFETY DATA SHEET

Hardener

Date Prepared : 05/15/2015

SDS No : 99.0115H

## Ceramic Alloy Putty

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Ceramic Alloy Putty  
**PRODUCT CODE:** Ceramic Alloy Putty - Hardener

#### MANUFACTURER

Reporex, Inc.  
 5058 Center Drive  
 Latrobe, PA 15650  
**Customer Service:** 724-537-0444

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

INFOTRAC  
 1-352-323-3500 (International)  
 1-800-535-5053 (North America)

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATIONS

##### Health:

Skin Corrosion, Category 1B  
 Acute Toxicity (Oral), Category 4  
 Reproductive Toxicity, Category 2

##### Environmental:

Aquatic Acute, Category 1  
 Aquatic Chronic, Category 1

#### GHS LABEL



Exclamation  
mark



Environment



Corrosion



Health  
hazard

**SIGNAL WORD:** DANGER

#### HAZARD STATEMENTS

H302: Harmful if swallowed.  
 H314: Causes severe skin burns and eye damage.  
 H315: Causes skin irritation.  
 H317: May cause an allergic skin reaction.  
 H318: Causes serious eye damage.  
 H332: Harmful if inhaled.  
 H361d: Suspected of damaging the unborn child.  
 H411: Toxic to aquatic life with long lasting effects.  
 H412: Harmful to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

##### Prevention:

P102: Keep out of reach of children.  
 P103: Read label before use.  
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.  
 P262: Do not get in eyes, on skin, or on clothing.  
 P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P285: In case of inadequate ventilation wear respiratory protection.

**Response:**

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/...

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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

P312: Call a POISON CENTER/doctor/...if you feel unwell.

P363: Wash contaminated clothing before reuse.

**Storage:**

P404: Store in a closed container.

**EMERGENCY OVERVIEW**

**IMMEDIATE CONCERNS:** Substance may be harmful if swallowed. May cause vomiting. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness). Contact may cause eye irritation. Prolonged or repeated contact may cause skin irritation.

**POTENTIAL HEALTH EFFECTS**

**EYES:** Serious eye damage/eye irritation

**SKIN:** Skin corrosion/irritation

**SKIN ABSORPTION:** May be absorbed through skin with prolonged and widespread contact.

**INGESTION:** Harmful if swallowed. May cause vomiting. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. May cause cardiovascular disorder and damage.

**INHALATION:** Prolonged or repeated exposure to fumes or mists may cause irritation.

**MEDICAL CONDITIONS AGGRAVATED:** Breathing problems, skin problems.

**ROUTES OF ENTRY:** Inhalation, ingestion, eyes, skin.

**TARGET ORGAN STATEMENT:** Respiratory system, lungs, skin, eyes.

**COMMENTS:** The health and safety hazards are listed separately for the resin and hardener. The final cured product is considered non-hazardous.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Wt.%	CAS
4-nonylphenol, Branched	30 - 35	84852-15-3
Aluminum Oxide	30 - 35	1344-28-1
Iron	15 - 20	7439-89-6
fatty acids, c18-unsatd., dimers, reaction products with polyethylenepolyamines	5 - 10	68410-23-1
Benzyl Alcohol	1 - 5	100-51-6
formaldehyde, polymer with benzenamine, hydrogenated	1 - 5	135108-88-2
formaldehyde, polymer with n1,n2-bis(2-aminoethyl)-1,2-ethanediamine and phenol	1 - 5	32610-77-8
Chromium	1 - 5	7440-47-3
Hydrogenated Castor Oil	1 - 5	8001-78-3
cyclohexanamine, 4,4'-methylenebis-	0.1 - 1	1761-71-3
Phenol	0.1 - 1	108-95-2
Formaldehyde	0.1 - 1	50-00-0
3,6-diazaoctanethylenediamine	0.1 - 1	112-24-3

Titanium Dioxide	0.1 - 1	13463-67-7
Soluble Compounds, As Mo	0.1 - 1	7439-98-7
Manganese Compounds	0.1 - 1	7439-96-5

**COMMENTS:** Exact percentages of ingredients are proprietary and are withheld as a trade secret.

#### 4. FIRST AID MEASURES

**EYES:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists. Get medical advice/attention.

**SKIN:** Take off contaminated clothing. Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**INGESTION:** Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician.

**INHALATION:** Remove to fresh air. Oxygen or artificial respiration if needed. Call a physician if you feel unwell.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**EYES:** Redness, burning sensation, tearing (watering) of the eyes.

**SKIN:** Substance may cause slight skin irritation.

**INGESTION:** Burning, irritation, upset stomach, intestinal distress.

**INHALATION:** No adverse effects anticipated. Irritation may be caused if product is above room temperature.

**NOTES TO PHYSICIAN:** Treat symptomatically.

#### 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Water spray (fog). Carbon dioxide (CO<sub>2</sub>). Dry chemical. Foam.

**EXPLOSION HAZARDS:** None

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

**FIRE FIGHTING EQUIPMENT:** Carbon Dioxide, dry chemical or foam

**FIRE EXPLOSION:** None Expected.

**SENSITIVE TO STATIC DISCHARGE:** None

**SENSITIVITY TO IMPACT:** None

#### 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Absorb spilled material and place in appropriate container for disposal.

**LARGE SPILL:** Use same methods described for small spills.

#### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** Keep out of sewers, streams and waterways.

**SPECIAL PROTECTIVE EQUIPMENT:** Refer to Section 8, Exposure Control/Personal Protection.

#### 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Handle in accordance with good industrial hygiene and safety practice. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace.

**HANDLING:** Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Use personal protection recommended in Section 8. Avoid breathing dust or fume. Contaminated work clothing should not be allowed out of the workplace.

**STORAGE:** Keep container tightly closed and in a well-ventilated place. Keep container dry.

**STORAGE TEMPERATURE:** 15°C (60°F) Minimum to 30°C (85°F) Maximum

**SHELF LIFE:** 1 Year

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

## EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Aluminum Oxide	TWA	[1]	15 T, [1]				
	STEL			10			
Chromium	TWA		1		0.5		
Hydrogenated Castor Oil	TWA	[2]	[2]	[2]	[2]		
Phenol	TWA	5	19	5	19	NL	NL
	STEL					NL	NL
Formaldehyde	TWA	0.75				NL	NL
	STEL	2				NL	NL
Titanium Dioxide	TWA		15 T		10	NL	NL
	STEL					NL	NL
Manganese Compounds	TWA				(0.2)N		

**Footnotes:**  
1. 5 mg/m<sup>3</sup> respirable  
2. Exposure limits not established.

**ENGINEERING CONTROLS:** Ensure adequate ventilation, especially in confined areas.

**PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Wear safety glasses with side shields. Chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent) are recommended.

**SKIN:** Coveralls or work clothes covering skin. Rubber gloves.

**RESPIRATORY:** Not normally needed if used in well ventilated area. In case of insufficient ventilation, wear suitable respiratory equipment.

**PROTECTIVE CLOTHING:** Impervious clothing as necessary to prevent skin contact.

**WORK HYGIENIC PRACTICES:** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)
Benzyl Alcohol	200

**ODOR:** Ammonia

**APPEARANCE:** Paste

**COLOR:** Grey

**pH:** Not Determined

**PERCENT VOLATILE:** None known.

**FLASH POINT AND METHOD:** > 249°C (480°F)

**Notes:** Closed Container

**AUTOIGNITION TEMPERATURE:** > 249°C (480°F)

**VAPOR PRESSURE:** Not Determined

**VAPOR DENSITY:** Not Determined

**BOILING POINT:** Not Determined

**FREEZING POINT:** Not Determined

**MELTING POINT:** Not Determined

**POUR POINT:** Not Determined

**THERMAL DECOMPOSITION:** Not Determined

**SOLUBILITY IN WATER:** Slight

**EVAPORATION RATE:** Not Determined

**DENSITY:** Not Determined

**SPECIFIC GRAVITY:** 2.4

**VISCOSITY:** Not Determined

**MOLECULAR WEIGHT:** Not Determined

## 10. STABILITY AND REACTIVITY

**REACTIVITY:** No

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Extreme heat.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Not reactive under normal conditions.

**HAZARDOUS DECOMPOSITION PRODUCTS:** When product burns it may form toxic materials such as carbon dioxide, carbon monoxide, various hydrocarbons, etc.

**INCOMPATIBLE MATERIALS:** Strong oxidizing agents. Acids. Bases. Amines.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE

Chemical Name	ORAL LD <sub>50</sub>	DERMAL LD <sub>50</sub>	INHALATION LC <sub>50</sub>
4-nonylphenol, Branched	1300 mg/kg (Rat)	3160 mg/kg (Rabbit)	
fatty acids, c18-unsatd., dimers, reaction products with polyethylenepolyamines	> 5000 mg/kg body weight		
Benzyl Alcohol	1230	2000	1000
Hydrogenated Castor Oil	> 2000 mg/kg bw/day (Rat)	> 2000 mg/kg bw/day (Rat)	> 1.86 mg/L (6h) Rat
Phenol	270 mg/kg (Mouse)	630 mg/kg (Rabbit)	
3,6-diazaoctanethylenediamine	2500 mg/kg (Rat)	805 mg/kg (Rabbit)	
Titanium Dioxide	> 10.000 mg/kg (Rat)	> 10.000 mg/kg (Rat)	

**EYE EFFECTS:** Causes serious eye irritation.

**SKIN EFFECTS:** Causes skin irritation. May cause an allergic skin reaction.

**CHRONIC:** Prolonged or repeated contact may cause asthma, skin sensitization and other allergic responses.

### CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status
Chromium		3	
Phenol		3	
Formaldehyde	1	1	X
Titanium Dioxide		2B	

**Notes:** The materials in this product do not separate from the mixture or in of themselves become airborne, therefore do not present a hazard in normal use.

## 12. ECOLOGICAL INFORMATION

**ECOTOXICOLOGICAL INFORMATION:** Not Determined

**BIOACCUMULATION/ACCUMULATION:** Not Determined

## 13. DISPOSAL CONSIDERATIONS

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

**PRODUCT DISPOSAL:** Combine resin and curative. The final cured material is considered nonhazardous. Landfill sealed containers with stabilized and solidified liquids in an approved area. May be incinerated at an appropriate facility. Unreacted components are a special waste. Check local, state and national/federal regulations and comply with the most stringent requirement.

**EMPTY CONTAINER:** Disposal should be in accordance with applicable regional, national and local laws and regulations.

## 14. TRANSPORT INFORMATION

### DOT (DEPARTMENT OF TRANSPORTATION)

**PROPER SHIPPING NAME:** Environmentally hazardous substance, Solid, N.O.S. (Phenol, Formaldehyde, 3,6-diazaoctanethylenediamine)

**PRIMARY HAZARD CLASS/DIVISION:** 9

**UN/NA NUMBER:** 3077

**PACKING GROUP:** III

**U.S. SURFACE FREIGHT CLASS:** 55

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

**LABEL:** Class 9

### ROAD AND RAIL (ADR/RID)

**PROPER SHIPPING NAME:** Environmentally hazardous substance, Solid, N.O.S. (Phenol, Formaldehyde, 3,6-diazaoctanethylenediamine)

**UN NUMBER:** 3077

**HAZARD CLASS:** 9

**PACKING GROUP:** III

### AIR (ICAO/IATA)

**SHIPPING NAME:** Environmentally hazardous substance, Solid, N.O.S. (Phenol, Formaldehyde, 3,6-diazaoctanethylenediamine)

**UN/NA NUMBER:** 3077

**PRIMARY HAZARD CLASS/DIVISION:** 9

**PACKING GROUP:** III

### VESSEL (IMO/MDG)

**SHIPPING NAME:** Environmentally hazardous substance, Solid, N.O.S. (Phenol, Formaldehyde, 3,6-diazaoctanethylenediamine)

UN/NA NUMBER: 3077

PRIMARY HAZARD CLASS/DIVISION: 9

PACKING GROUP: III

**CANADA TRANSPORT OF DANGEROUS GOODS**

SHIPPING NAME: Environmentally hazardous substance, Solid, N.O.S. (Phenol, Formaldehyde, 3,6- diazoctanethylenediamine)

UN/NA NUMBER: 3077

PRIMARY HAZARD CLASS/DIVISION: 9

PACKING GROUP: III

COMMENTS: US DOT: ERG NO. 154 May be shipped as Limited Quantities in packaging having a rated capacity gross weight of 66 lb. or less and in inner packages not over 5 kg (49 CFR 173.154 (b,2))

**15. REGULATORY INFORMATION****UNITED STATES****DOT LABEL SYMBOL AND HAZARD CLASSIFICATION**

Class 9

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

311/312 HAZARD CATEGORIES: Immediate &amp; Delayed

**EPCRA SECTION 313 SUPPLIER NOTIFICATION**

Chemical Name	Wt.%	CAS
Aluminum Oxide	30 - 35	1344-28-1
Chromium	1 - 5	7440-47-3
Formaldehyde	0.1 - 1	50-00-0

**CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)**

Chemical Name	Wt.%	CERCLA RQ
Chromium	1 - 5	5,000
Phenol	0.1 - 1	1,000
Formaldehyde	0.1 - 1	100

**TSCA (TOXIC SUBSTANCE CONTROL ACT)**

Chemical Name	CAS
4-nonylphenol, Branched	84852-15-3
Aluminum Oxide	1344-28-1
Iron	7439-89-6
fatty acids, c18-unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1
Benzyl Alcohol	100-51-6
formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2
formaldehyde, polymer with n1,n2-bis(2-aminoethyl)-1,2-ethanediamine and phenol	32610-77-8
Chromium	7440-47-3
Hydrogenated Castor Oil	8001-78-3

cyclohexanamine, 4,4'-methylenebis-	1761-71-3
Phenol	108-95-2
Formaldehyde	50-00-0
3,6-diazaoctanethylenediamine	112-24-3
Titanium Dioxide	13463-67-7
Soluble Compounds, As Mo	7439-98-7
Manganese Compounds	7439-96-5

**CLEAN AIR ACT**

Chemical Name	Wt.%	CAS
Formaldehyde	0.1 - 1	50-00-0

**CALIFORNIA PROPOSITION 65:** This product does not contain chemical(s) known to the state of California to cause cancer, birth defects, or reproductive harm.

Chemical Name	Wt.%	Listed
Formaldehyde	0.1 - 1	Cancer

**CANADA****WHMIS HAZARD SYMBOL AND CLASSIFICATION**

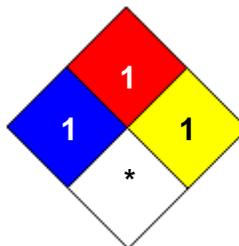
Toxic

**16. OTHER INFORMATION**

**PREPARED BY:** Shani Vagnoni-Hull      **Date Prepared:** 05/15/2015

**HMIS RATING**

<b>HEALTH</b>	*	<b>1</b>
<b>FLAMMABILITY</b>		<b>1</b>
<b>PHYSICAL HAZARD</b>		<b>1</b>
<b>PERSONAL PROTECTION</b>	*	

**NFPA CODES**

**COMMENTS:** \* = Section 8

**MANUFACTURER DISCLAIMER:** The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.