

Conforms to HazCom 2012/United States **SAFETY DATA SHEET**

**WCF Alumina Ceramic AD-94,**

**Section 1. Identification**

revised **1/1/2018**

**Product identifier used on** : WCF-1, WCF-5 Alumina Ceramic Filler

**Code** : Not available.

**Recommended use and restrictions**

**Identified uses**

Wear resistant, corrosion resistant, temperature resistant products.

**Supplier's details** : Mark V Lab  
18 Kripes Rd.  
East Granby, CT 06026  
Phone: 860-653-7201  
Fax: 860-653-4087

**Emergency telephone number (with hours of operation)** : 303-271-7000

**Section 2. Hazards identification**

**Classification of the substance or mixture** : SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3  
**GHS label elements**



**Hazard pictograms** :  
**Signal word** : Warning  
**Hazard statements** : May cause respiratory irritation.  
**Precautionary statements**

**General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Prevention** : Use only outdoors or in a well-ventilated area. Avoid breathing dust.

**Response** : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.

**Storage** : Store locked up.

--

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification**: None known.



,0

### Section 3. Composition/information on ingredients

**Substance/mixture of** : Substance **Other means**

**CAS number/other identifiers**

**CAS number** : 1344-28-1

**EC number** : Not available. **Product code** : Not available.

<b>Ingredient name</b>	<b>%</b>	<b>CAS number</b>
Aluminum oxide	60 - 100	1344-28-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician.  
If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse.
- Ingestion** : Clean shoes thoroughly before reuse.  
Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get

**MARK V LAB**

medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

**Most important symptoms/effects, acute and delayed Potential acute health effects**

**Eye contact** : No known significant effects or critical hazards. **Inhalation** : May cause respiratory irritation.

**Skin contact** : No known significant effects or critical hazards. **Ingestion** : No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

**Section 4. First aid measures**

**Eye contact** : No known significant effects or critical hazards. **Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation coughing

: No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards. **Ingestion**

**Indication of immediate medical attention and special treatment needed, if necessary**



**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

**Section 5. Fire-fighting measures**

---

**Extinguishing media** :

**Suitable extinguishing media** :

Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** :

None known.

**Specific hazards arising from the chemical** :

No specific fire or explosion hazard.

**Hazardous thermal decomposition products** :

Decomposition products may include the following materials:  
metal oxide/oxides

**Special protective actions for fire-fighters**  
**Special protective equipment for fire-fighters** :

No special protection is required.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## **Section 6. Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel** : No special measures are required.

**personnel**

**For emergency responders** : No special measures are required. **Environmental precautions**

: No special measures are required.

### **Methods and materials for containment and cleaning up**

**Spill** : Place in a designated, labeled waste container taking into consideration any contamination that may be on the filter as a result of use.

## Section 7. Handling and storage

**Precautions for safe handling** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in a cool, clean environment. Handle and open container with care. See Section 10 for further details.

# **MARK V LAB**

## **Section 8. Exposure controls/personal protection**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. safety glasses : with side-shields.

**Eye/face protection**

**Skin protection**

**Hand protection**

**Body protection**

**Other skin protection**

**Respiratory protection**

: Protective gloves.  
 : Lab coat or equivalent.  
 : Suitable protective footwear.  
 : A respirator is not needed under normal and intended conditions of product use.

**Control parameters Occupational exposure limits**

Ingredient name	Exposure limits
Aluminum oxide	<p><b>NIOSH REL (United States, 6/2009).</b>                      TWA: 5 mg/m<sup>3</sup>, (as Al) 10 hours. Form: Pyro powders and welding fumes  <b>OSHA PEL (United States, 6/2010).</b> TWA:                      5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction                      TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  <b>ACGIH TLV (United States).</b>                      TWA: 1 mg/m<sup>3</sup>, (Al) 8 hours. Form: Respirable fraction</p>

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Appropriate engineering controls**

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls**

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**



# MARK V LAB

## Section 9. Physical and chemical properties

<p>Appearance Physical state</p> <p>Color</p> <p>Odor Odor threshold pH</p> <p>Melting point/freezing point</p> <p>Boiling point/boiling range</p> <p>Flash point</p> <p>Evaporation rate</p> <p>Flammability (solid, gas) Lower and upper explosive (flammable) limits Vapor pressure</p> <p>Vapor density</p> <p>Relative density</p> <p>Solubility</p> <p>Partition coefficient: noctanol/water Auto-ignition temperature</p> <p>Decomposition temperature</p> <p>SADT</p> <p>Viscosity</p> <p>: Solid.</p> <p>: White.</p> <p>: None</p> <p>: Not available.</p> <p>: Not available.</p> <p>:</p> <p>&gt;</p> <p>1</p> <p>7</p> <p>0</p> <p>0</p> <p>°</p> <p>C</p> <p>(</p> <p>&gt;</p> <p>3</p> <p>0</p> <p>9</p> <p>2</p> <p>°</p> <p>F</p> <p>)</p> <p>:</p> <p>&gt;</p> <p>2</p> <p>2</p> <p>0</p> <p>0</p> <p>°</p> <p>C</p> <p>(</p> <p>&gt;</p> <p>3</p>	<p>9</p> <p>9</p> <p>2</p> <p>°</p> <p>F</p> <p>)</p> <p>:</p> <p>N</p> <p>o</p> <p>t</p> <p>a</p> <p>v</p> <p>a</p> <p>i</p> <p>l</p> <p>a</p> <p>b</p> <p>l</p> <p>e</p> <p>.</p> <p>:</p> <p>N</p> <p>o</p> <p>t</p> <p>a</p> <p>v</p> <p>a</p> <p>i</p> <p>l</p> <p>a</p> <p>b</p> <p>l</p> <p>e</p> <p>.</p> <p>: Not available.</p> <p>: Not available.</p> <p>: Not available.</p> <p>:</p> <p>Not</p> <p>avai</p> <p>labl</p> <p>e. :</p> <p>3.7</p> <p>:</p> <p>Neg</p> <p>ligib</p> <p>le</p> <p>solu</p> <p>bilit</p>
--	--

y in : Not available.  
wat : Not available.  
er. : : Not available.  
Not : Not available.  
avai  
labl  
e.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Incompatible materials** : Not available.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

**Information on toxicological effects Acute toxicity** There is no data available.

### Irritation/Corrosion

- Skin** : There is no data available.  
**Eyes** : There is no data available. **Respiratory** : There is no data available.

# MARK V LAB

## Sensitization

**Skin** : There is no data available. **Respiratory** : There is no data available.

## Mutagenicity

There is no data available.

## Carcinogenicity Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Aluminum oxide	A4	-	-	-	-	-

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

**Reproductive toxicity**

There is no data available.

**Teratogenicity** There is no data available.

**Specific target organ toxicity (single exposure)**

Name	Category	Route of exposure	Target organs
Aluminum oxide	Category 3	Not applicable.	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

There is no data available. **Aspiration hazard**

There is no data available.

**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

**Eye contact** : No known significant effects or critical hazards. **Inhalation** : May cause respiratory irritation.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards. **Symptoms related to the physical, chemical and toxicological characteristics** **Eye contact** : No known significant effects or critical hazards. **Inhalation** :

- Adverse symptoms may include the following:
- respiratory tract irritation
  - coughing

## Section 11. Toxicological information

### Delayed and immediate effects and also chronic effects from short and long term exposure Short term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

### Long term exposure

**Potential immediate effects** : No known significant effects or critical hazards.

**Potential delayed effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

7/9

### Potential chronic health effects

**General** : No known significant effects or critical hazards. **Carcinogenicity** : No known significant effects or critical hazards. **Mutagenicity** : No known significant effects or critical hazards. **Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

**Acute toxicity estimates** There is no data available.

## Section 12. Ecological information

### Toxicity

There is no data available.

### Persistence and degradability

There is no data available.

**Bioaccumulative potential** There is no data available.

### Mobility in soil

**Soil/water partition** : There is no data available. **coefficient ( $K_{oc}$ )**

**Other adverse effects** : No known significant effects or critical hazards.

## Section 15. Regulatory information

**Safety, health and environmental regulations specific for the product** : No known specific national and/or regional regulations applicable to this product (including its ingredients).

**U.S. Federal regulations** : **TSCA 8(a) IUR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** All components are listed or exempted. **SARA 302/304/311/312 extremely hazardous substances:** No products were found.  
**SARA 302/304 emergency planning and notification:** No products were found.  
**SARA 302/304/311/312 hazardous chemicals:** Aluminum oxide  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification:**  
Aluminum oxide: Immediate (acute) health hazard

: Not listed

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) Clean Air Act Section 602 Class I Substances**

: Not listed

: Not listed

**Clean Air Act Section 602 Class II Substances**

: Not listed

**DEA List I Chemicals (Precursor Chemicals) DEA List II Chemicals (Essential Chemicals)**

: Not listed

## Section 14. Transport information

	DOT	IMDG	IATA
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-
<b>Transport hazard class(es)</b>	-	-	-
<b>Packing group</b>	-	-	-
<b>Environmental hazards</b>	No.	No.	No.
<b>Special precautions for user</b>	-	-	-
<b>Additional information</b>	-	-	-

Transport in bulk according : Not available.  
to Annex II of MARPOL  
73/78 and the IBC Code



## Section 15. Regulatory information

### SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Aluminum oxide	1344-28-1	60 - 100
Supplier notification	Aluminum oxide	1344-28-1	60 - 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

### State regulations

**Massachusetts** : The following components are listed: Aluminum oxide **New York** : None of the components are listed.

**New Jersey** : The following components are listed: Aluminum oxide

**Pennsylvania** : The following components are listed: Aluminum oxide

### California Prop. 65

No products were found.

## Section 16. Other information

### History

**Date of issue mm/dd/yyyy** :12/5/2013

**Version** :2

**Prepared by** : KMK Regulatory Services Inc. / CoorsTek EHS Updated

Classification	Justification
STOT SE 3, H335	Calculation method

**Key to abbreviations** :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

### Notice to reader

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.