

# Safety Data Sheet

## 80033-B Catalyst (Alumina base catalyst with heavy metals)

SDS Revision Date:

01/21/2016

### 1. Identification

#### 1.1. Product identifier

**Product Identity** 80033-B Catalyst (Alumina base catalyst with heavy metals)

**Alternate Names** 80033-B Catalyst (Alumina base catalyst with heavy metals)

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

**Intended use** See Technical Data Sheet.

**Application Method** See Technical Data Sheet.

#### 1.3. Details of the supplier of the safety data sheet

**Company Name** Modern Safety Techniques  
11370 Breininger Rd.  
PO Box 87  
Hicksville, OH 43526

**Customer Service: Modern Safety Techniques** Tel +1 (800) 542 6646  
+1(419) 542 6645

### 2. Hazard(s) identification

#### 2.1. Classification of the substance or mixture

Aquatic Chronic 2;H411 Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.



H411 Toxic to aquatic life with long lasting effects.

#### **[Prevention]:**

P273 Avoid release to the environment.

#### **[Response]:**

P391 Collect spillage.

#### **[Storage]:**

No GHS storage statements

#### **[Disposal]:**

P501 Dispose of contents / container in accordance with local / national regulations.

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### 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Aluminum oxide CAS Number: 0001344-28-1	70-85	Not Classified	[1][2]
Copper chloride (CuCl) CAS Number: 0007758-89-6	1 - 5	Acute Tox. 4;H302 Aquatic Acute 1;H400 Aquatic Chronic 1;H410	[1]
Copper (II) sulfate pentahydrate (1:1:5) CAS Number: 0007758-99-8	5-10	Not Classified	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the phrases are shown in Section 16.

### 4. First aid measures

#### 4.1. Description of first aid measures

##### General

In all cases of doubt, or when symptoms persist, seek medical attention.  
Never give anything by mouth to an unconscious person.

##### Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

##### Eyes

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

##### Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

##### Ingestion

If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

##### Overview

Alumina is not known to cause any occupational disease. A mild desiccation of the skin may result from frequent contact. Nickel compounds are listed on the NTP and IARC lists as suspected carcinogens which have been known to cause cancer in laboratory animal tests. MST, Inc. knows of no medical conditions abnormally aggravated by exposure to this product. The primary route of entry is inhalation.

Because of the presence of a suspected carcinogen, avoid inhalation, ingestion or skin contact with the catalyst in either the product form or an altered form resulting from its use (dust, leachate, or waste). See section 2 for further details.

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#### 5. Fire-fighting measures

##### 5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder, water spray.  
Do not use: water jet.

##### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

##### 5.3. Advice for fire-fighters

None

ERG Guide No. ----

#### 6. Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

##### 6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

##### 6.3. Methods and material for containment and cleaning up

Vacuum up. Return to container for re-use or disposal.

#### 7. Handling and storage

##### 7.1. Precautions for safe handling

Keep containers tightly sealed and dry.

See section 2 for further details. - [Prevention]:

##### 7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: No data available.

See section 2 for further details. - [Storage]:

##### 7.3. Specific end use(s)

No data available.

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## 8. Exposure controls and personal protection

### 8.1. Control parameters

#### Exposure

CAS No.	Ingredient	Source	Value
0001344-28-1	Aluminum oxide	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	No Established Limit
		NIOSH	no established RELs
		Supplier	No Established Limit
0007758-89-6	Copper chloride (CuCl)	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0007758-99-8	Copper (II) sulfate pentahydrate (1:1:5)	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

The exposure limits for nuisance dust are: OSHA PEL: 15 mg/m3 (50 mppcf\*) TWA, ACGIH 10 mg/m3.

#### Carcinogen Data

CAS No.	Ingredient	Source	Value
0001344-28-1	Aluminum oxide	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007758-89-6	Copper chloride (CuCl)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007758-99-8	Copper (II) sulfate pentahydrate (1:1:5)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

### 8.2. Exposure controls

#### Respiratory

To avoid inhalation, use a properly fitted NIOSH-approved respirator fitted with a filter for highly toxic particulates

#### Eyes

Protective safety glasses recommended

#### Skin

Avoid skin contact by using rubber gloves, head coverings, goggles, and impervious clothing that is changed once a day

#### Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

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**Other Work Practices** Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

### 9. Physical and chemical properties

<b>Appearance</b>	Bluish green beads Solid
<b>Odor</b>	None
<b>Odor threshold</b>	Not determined
<b>pH</b>	IN 5% SLURRY: Approximately 5-9
<b>Melting point / freezing point</b>	Not Measured
<b>Initial boiling point and boiling range</b>	Not Measured
<b>Flash Point</b>	Not Measured
<b>Evaporation rate (Ether = 1)</b>	Not Measured
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> Not Measured <b>Upper Explosive Limit:</b> Not Measured
<b>Vapor pressure (Pa)</b>	Not Measured
<b>Vapor Density</b>	Not Measured
<b>Specific Gravity</b>	Approximately ~2.4
<b>Solubility in Water</b>	Base-Insoluble. Heavy metals will leach.
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured
<b>Auto-ignition temperature</b>	Not Measured
<b>Decomposition temperature</b>	Not Measured
<b>Viscosity (cSt)</b>	Not Measured
<b>Bulk Density</b>	25-30 lbs/ft <sup>3</sup>

#### 9.2. Other information

No other relevant information.

### 10. Stability and reactivity

#### 10.1. Reactivity

Hazardous Polymerization will not occur.

#### 10.2. Chemical stability

Stable under normal circumstances.

#### 10.3. Possibility of hazardous reactions

No data available.

#### 10.4. Conditions to avoid

Following contact with other chemicals or gases, the catalyst must be handled with special precautions. The combination of catalyst and retained material can be flammable and acutely toxic. Extra protection should be used

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besides that described in PRECAUTIONS IN USE. Avoid sources of ignition.

### 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

No hazardous decomposition data available.

## 11. Toxicological information

### Acute toxicity

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Aluminum oxide - (1344-28-1)	5,000.00, Rat - Category: 5	No data available	No data available	No data available	No data available
Copper chloride (CuCl) - (7758-89-6)	No data available	No data available	No data available	No data available	No data available
Copper (II) sulfate pentahydrate (1:1:5) - (7758-99-8)	No data available	No data available	No data available	No data available	No data available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

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### 12. Ecological information

#### 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

#### Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Aluminum oxide - (1344-28-1)	Not Available	Not Available	Not Available
Copper chloride (CuCl) - (7758-89-6)	Not Available	Not Available	Not Available
Copper (II) sulfate pentahydrate (1:1:5) - (7758-99-8)	Not Available	Not Available	Not Available

#### 12.2. Persistence and degradability

There is no data available on the preparation itself.

#### 12.3. Bioaccumulative potential

Not Measured

#### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

#### 12.6. Other adverse effects

No data available.

### 13. Disposal considerations

#### 13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

### 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Applicable	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable

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### 14.5. Environmental hazards

**IMDG** Marine Pollutant: Yes; ( Copper chloride (CuCl) )

### 14.6. Special precautions for user

No further information

## 15. Regulatory information

**Regulatory Overview** The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

**Toxic Substance Control Act ( TSCA)** All components of this material are either listed or exempt from listing on the TSCA Inventory.

**WHMIS Classification** Not Regulated

### US EPA Tier II Hazards

**Fire:** No

**Sudden Release of Pressure:** No

**Reactive:** No

**Immediate (Acute):** No

**Delayed (Chronic):** No

### EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### EPCRA 313 Toxic Chemicals:

Copper (II) sulfate pentahydrate (1:1:5)

Copper chloride (CuCl)

### Proposition 65 - Carcinogens (>0.0%):

Nickel(II) chloride, hexahydrate (1:2:6)

### Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

### New Jersey RTK Substances (>1%):

Aluminum oxide

### Pennsylvania RTK Substances (>1%):

Aluminum oxide



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#### 16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H302 Harmful if swallowed.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

The information contained herein is furnished without warranty of any kind. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. Users should make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

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