

Page: 1 of 5

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

**1.1 Product Code:** 10011141

Product Name: MG Phosphate Standard

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

**Relevant identified uses:** For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: Cayman Chemical Company

1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Web site address: www.caymanchem.com

Information: Cayman Chemical Company +1 (734)971-3335

1.4 Emergency telephone number:

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

2.1 Classification of the Substance or Mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:

2.2 Label Elements:

2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:

GHS Signal Word: None

**GHS Hazard Phrases:** 

Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.

**GHS Precaution Phrases:** 

No phrases apply.

**GHS Response Phrases:** 

No phrases apply.

**GHS Storage and Disposal Phrases:** 

Please refer to Section 7 for Storage and Section 13 for Disposal information.

2.3 Adverse Human Health Material may be irritating to the mucous membranes and upper respiratory tract.

**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.

May cause eye, skin, or respiratory system irritation.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

# Section 3. Composition/Information on Ingredients

CAS#/ RTECS#	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
7758-11-4 TC5580000	Potassium phosphate, dibasic	13.6 %	231-834-5 NA	No data available.
7732-18-5 ZC0110000	Water	86.4 %	231-791-2 NA	No data available.



Page: 2 of 5

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

### Section 4. First Aid Measures

4.1 Description of First Aid

Measures:

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.

Get immediate medical attention.

In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated

clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined

and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an

unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by

medical personnel.

## Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing A solid water stream may be inefficient.

Media:

5.2 Flammable Properties and No data available.

Hazards:

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

5.3 Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or

equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1** Protective Precautions, Avoid breathing vapors and provide adequate ventilation.

Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,

Emergency Procedures: and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental** Take steps to avoid release into the environment, if safe to do so.

**Precautions:** 

**6.3** Methods and Material For Contain spill and collect, as appropriate.

Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.

Up:

# Section 7. Handling and Storage

**7.1 Precautions To Be Taken** Avoid breathing dust/fume/gas/mist/vapours/spray.

in Handling: Avoid prolonged or repeated exposure.

**7.2** Precautions To Be Taken Keep container tightly closed.

in Storing: Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

#### 8.1 Exposure Parameters:

CAS#	Partial Chemical Name	Britain EH40	France VL	Europe
7758-11-4	Potassium phosphate, dibasic	No data.	No data.	No data.
7732-18-5	Water	No data.	No data.	No data.

Multi-region format



Page: 3 of 5

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7758-11-4	Potassium phosphate, dibasic	No data.	No data.	No data.
7732-18-5	Water	No data.	No data.	No data.

8.2 Exposure Controls:

8.2.1 Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne

(Ventilation etc.): levels below recommended exposure limits.

8.2.2 Personal protection equipment:

**Eye Protection:** Safety glasses

Protective Gloves: Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

**Respiratory Equipment** NIOSH approved respirator, as conditions warrant.

(Specify Type):

Work/Hygienic/Maintenan Do not take internally.

ce Practices: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety

shower.

Wash thoroughly after handling.

No data available.

## Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States: [ ] Gas [ X ] Liquid [ ] Solid

Appearance and Odor: Solution

Melting Point: No data.

Boiling Point: No data.

Flash Pt: No data.

Evaporation Rate: No data.

Flammability (solid, gas): No data available.

Explosive Limits: LEL: No data. UEL: No data.

Vapor Pressure (vs. Air or mm No data.

Hg):

Vapor Density (vs. Air = 1): No data.

Specific Gravity (Water = 1): No data.

Solubility in Water: No data.

Autoignition Pt: No data.

9.2 Other Information

Percent Volatile: No data.

### Section 10. Stability and Reactivity

**10.1 Reactivity:** No data available.

**10.2 Stability:** Unstable [ ] Stable [ X ]

**10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.

Polymerization: Will occur [ ] Will not occur [ X ]

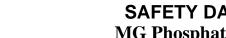
10.4 Conditions To Avoid: No data available.

10.5 Incompatibility - Materials strong oxidizing agents

To Avoid:

10.6 Hazardous potassium oxides

Decomposition or



Page: 4 of 5

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

**Byproducts:** 

Section 11. Toxicological Information

11.1 Information on The toxicological effects of this product have not been thoroughly studied.

**Toxicological Effects:** 

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

CAS#	CAS # Hazardous Components (Chemical Name)		IARC	ACGIH	OSHA
7758-11-4	Potassium phosphate, dibasic	n.a.	n.a.	n.a.	n.a.
7732-18-5	Water	n.a.	n.a.	n.a.	n.a.

## Section 12. Ecological Information

**12.1 Toxicity:** Avoid release into the environment.

Runoff from fire control or dilution water may cause pollution.

**12.2** Persistence and No data available.

Degradability:

**12.3 Bioaccumulative** No data available.

Potential:

**12.4 Mobility in Soil:** No data available.

12.5 Results of PBT and vPvB No data available.

assessment:

12.6 Other adverse effects: No data available.

## Section 13. Disposal Considerations

13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

# Section 14. Transport Information

#### 14.1 LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Not dangerous goods.

DOT Hazard Class: UN/NA Number:

14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not dangerous goods.

UN Number: Hazard Class:

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not dangerous goods.

Additional Transport Transport in accordance with local, state, and federal regulations.

Information:

# Section 15. Regulatory Information

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)	
7758-11-4	Potassium phosphate, dibasic	No	No	No	
7732-18-5	Water	No	No	No	
040 "					

CAS#	Hazardous Components (Chemical Name)	Other US EPA or State Lists
7758-11-4	Potassium phosphate, dibasic	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

Multi-region format



Page: 5 of 5

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

7732-18-5 Water CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

Regulatory Information This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

**Statement:** No.1272/2008.

Section 16. Other Information

**Revision Date:** 05/09/2015

Additional Information About No data available.

This Product:

Company Policy or Disclaimer: DISCLAIMER: This information is believed to be accurate and represents the best information

currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for

their particular purposes.



Page: 1 of 6

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

**1.1 Product Code:** 10011142

Product Name: MG Blue Solution

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

**Relevant identified uses:** For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: Cayman Chemical Company

1180 E. Ellsworth Rd. Ann Arbor, MI 48108

Web site address: www.caymanchem.com

Information: Cayman Chemical Company +1 (734)971-3335

1.4 Emergency telephone number:

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

#### 2.1 Classification of the Substance or Mixture:

#### 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:

**Acute Toxicity: Oral, Category 3** 

Serious Eye Damage/Eye Irritation, Category 2

Toxic To Reproduction, Category 2
Aquatic Toxicity (Acute), Category 3
Aquatic Toxicity (Chronic), Category 3

#### 2.2 Label Elements:

### 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:





GHS Signal Word: Danger

#### **GHS Hazard Phrases:**

H301: Toxic if swallowed.

H319: Causes serious eye irritation.

H361: Suspected of damaging fertility or the unborn child.

H402: Harmful to aquatic life.

H412: Harmful to aquatic life with long lasting effects.

### **GHS Precaution Phrases:**

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P264: Wash {hands} thoroughly after handling.

P273: Avoid release to the environment.

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

#### **GHS Response Phrases:**

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy





Revision: 05/09/2015 Supersedes Revision: 06/29/2011

to do. Continue rinsing.

P308+313: IF exposed or concerned: Get medical attention/advice.

P330: Rinse mouth.

P337+313: If eye irritation persists, get medical advice/attention.

### **GHS Storage and Disposal Phrases:**

Please refer to Section 7 for Storage and Section 13 for Disposal information.

2.3 Adverse Human Health Causes serious eye irritation.

**Effects and Symptoms:** Harmful to aquatic life with long lasting effects.

Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation or skin absorption.

May cause skin or respiratory system irritation.

Suspected of damaging fertility or the unborn child.

Toxic if swallowed.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

## Section 3. Composition/Information on Ingredients

CAS#/ RTECS#	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
123333-61-9 NA	Malachite Green Carbinol Hydrochloride	0.0 -1.0 %	NA NA	Acute Tox.(O) 3: H301 Eye Damage 1: H318 Toxic Repro. 2: H361 Aquatic (A) 1: H400 Aquatic (C) 1: H410
9002-89-5 TR8100000	Polyvinyl alcohol mixture of polymers	0.0 -5.0 %	NA NA	No data available.
7732-18-5 ZC0110000	Water	94.0 -100.0 %	231-791-2 NA	No data available.

### Section 4. First Aid Measures

#### 4.1 Description of First Aid

Measures:

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.

Get immediate medical attention.

In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated

clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined

and tested by medical personnel.

In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth to an

unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by

medical personnel.



Page: 3 of 6

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

## Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

Unsuitable Extinguishing A solid water stream may be inefficient.

Media:

**5.2** Flammable Properties and No data available.

Hazards:

Flash Pt: No data.

**Explosive Limits:** LEL: No data. UEL: No data.

Autoignition Pt: No data.

**5.3** Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or

equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1 Protective Precautions,** Avoid breathing vapors and provide adequate ventilation.

Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,

**Emergency Procedures:** and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental** Take steps to avoid release into the environment, if safe to do so.

**Precautions:** 

**6.3 Methods and Material For** Contain spill and collect, as appropriate.

Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.

Up:

## Section 7. Handling and Storage

**7.1 Precautions To Be Taken** Avoid breathing dust/fume/gas/mist/vapours/spray.

**in Handling:** Avoid prolonged or repeated exposure.

**7.2** Precautions To Be Taken Keep container tightly closed.

in Storing: Store in accordance with information listed on the product insert.

Other Precautions: Light sensitive.

# Section 8. Exposure Controls/Personal Protection

### 8.1 Exposure Parameters:

CAS#	Partial Chemical Name	Britain EH40	France VL	Europe
123333-61-9	Malachite Green Carbinol Hydrochloride	No data.	No data.	No data.
9002-89-5	Polyvinyl alcohol mixture of polymers	No data.	No data.	No data.
7732-18-5	Water	No data.	No data.	No data.
CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
123333-61-9	Malachite Green Carbinol Hydrochloride	No data.	No data.	No data.
9002-89-5	Polyvinyl alcohol mixture of polymers	No data.	No data.	No data.
7732-18-5	Water	No data.	No data.	No data.



Revision: 05/09/2015 Supersedes Revision: 06/29/2011

8	.2	Exposure	Controls:

8.2.1 Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne

(Ventilation etc.): levels below recommended exposure limits.

8.2.2 Personal protection equipment:

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

**Respiratory Equipment** NIOSH approved respirator, as conditions warrant.

(Specify Type):

Work/Hygienic/Maintenan Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety ce Practices:

Wash thoroughly after handling.

No data available.

	Sectio	n 9. Physical and Chemical Properties
9.1	Information on Basic Physical ar	nd Chemical Properties
	Physical States:	[ ] Gas [ X ] Liquid [ ] Solid
	Appearance and Odor:	Solution
	Melting Point:	No data.
	Boiling Point:	No data.
	Flash Pt:	No data.
	Evaporation Rate:	No data.
	Flammability (solid, gas):	No data available.
	Explosive Limits:	LEL: No data. UEL: No data.
	Vapor Pressure (vs. Air or mm	No data.
	Hg):	
	Vapor Density (vs. Air = 1):	No data.
	Specific Gravity (Water = 1):	No data.
	Solubility in Water:	No data.
	Autoignition Pt:	No data.
9.2	Other Information	
	Percent Volatile:	No data.
	S	Section 10. Stability and Reactivity
10.1	Reactivity: No da	ta available.

10.1	Reactivity:	No data available.
------	-------------	--------------------

10.2 Unstable [ ] Stable [X] Stability:

10.3 Stability Note(s): Stable if stored in accordance with information listed on the product insert.

Polymerization: Will occur [ ] Will not occur [X]

10.4 **Conditions To Avoid:** No data available.

10.5 Incompatibility - Materials strong oxidizing agents

To Avoid:

10.6 Hazardous No data available.

**Decomposition or** 

**Byproducts:** 



Page: 5 of 6

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

## Section 11. Toxicological Information

**11.1** Information on The toxicological effects of this product have not been thoroughly studied.

Toxicological Effects: Polyvinyl Alcohol - Toxicity Data: Oral LD50 (mouse): 5000 mg/kg;

**Chronic Toxicological** Polyvinyl Alcohol - Investigated as a tumorigen.

Effects: Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.

See actual entry in RTECS for complete information. Polyvinyl Alcohol RTECS Number: TR8100000

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

CAS#	CAS # Hazardous Components (Chemical Name)		IARC	ACGIH	OSHA
123333-61-9	Malachite Green Carbinol Hydrochloride	n.a.	n.a.	n.a.	n.a.
9002-89-5	Polyvinyl alcohol mixture of polymers	n.a.	3	n.a.	n.a.
7732-18-5	Water	n.a.	n.a.	n.a.	n.a.

## Section 12. Ecological Information

**12.1 Toxicity:** Avoid release into the environment.

Runoff from fire control or dilution water may cause pollution.

**12.2** Persistence and No data available.

Degradability:

**12.3 Bioaccumulative** No data available.

Potential:

**12.4 Mobility in Soil:** No data available.

12.5 Results of PBT and vPvB No data available.

assessment:

**12.6** Other adverse effects: No data available.

# Section 13. Disposal Considerations

**13.1** Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

# Section 14. Transport Information

#### 14.1 LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Not dangerous goods.

DOT Hazard Class: UN/NA Number:

### 14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not dangerous goods.

UN Number: Hazard Class:

#### 14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Not dangerous goods.

Additional Transport Transport in accordance with local, state, and federal regulations.

Information:





Revision: 05/09/2015 Supersedes Revision: 06/29/2011

Section 15.	Regulatory	Information
-------------	------------	-------------

CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
123333-61-9	Malachite Green Carbinol Hydrochloride	No	No	No
9002-89-5	Polyvinyl alcohol mixture of polymers	No	No	No
7732-18-5	Water	No	No	No

CAS#	Hazardous Components (Chemical Name)	Other US EPA or State Lists
123333-61-9	Malachite Green Carbinol Hydrochloride	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
9002-89-5	Polyvinyl alcohol mixture of polymers	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
7732-18-5	Water	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

**Regulatory Information** 

This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

Statement:

No.1272/2008.

## Section 16. Other Information

Revision Date:

05/09/2015

Additional Information About

No data available.

This Product:

Company Policy or Disclaimer:

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for

their particular purposes.



Page: 1 of 6

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

**1.1 Product Code:** 10011143

Product Name: MG Acidic Solution

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

**Relevant identified uses:** For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: Cayman Chemical Company

1180 E. Ellsworth Rd.

Ann Arbor, MI 48108

Web site address: www.caymanchem.com

Information: Cayman Chemical Company +1 (734)971-3335

1.4 Emergency telephone number:

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

2.1 Classification of the Substance or Mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:

Skin Corrosion/Irritation, Category 1A

2.2 Label Elements:

2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:



GHS Signal Word: Danger

**GHS Hazard Phrases:** 

H314: Causes severe skin burns and eye damage.

**GHS Precaution Phrases:** 

P264: Wash {hands} thoroughly after handling.

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

**GHS** Response Phrases:

P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338: 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 or doctor/physician.

P363: Wash contaminated clothing before reuse.

**GHS Storage and Disposal Phrases:** 

Please refer to Section 7 for Storage and Section 13 for Disposal information.



Page: 2 of 6

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

2.3 Adverse Human Health Causes severe skin burns and eye damage.

Effects and Symptoms: Material may be irritating to the mucous membranes and upper respiratory tract.

May be harmful by inhalation, ingestion, or skin absorption.

May cause eye, skin, or respiratory system irritation.

To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

**Medical Conditions** Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be

**Generally Aggravated By** more susceptible to the effects of the substance.

**Exposure:** 

## Section 3. Composition/Information on Ingredients

CAS#/ RTECS#	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
12054-85-2 NA	Ammonium molybdate, tetrahydrate	1.0 -5.0 %	NA NA	No data available.
7664-93-9 WS5600000	Sulfuric acid	10.0 -20.0 %	231-639-5 016-020-00-8	Skin Corr. 1A: H314
7732-18-5 ZC0110000	Water	75.0 -89.0 %	231-791-2 NA	No data available.

## Section 4. First Aid Measures

4.1 Description of First Aid

Measures:

In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel.

Get immediate medical attention.

In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated

clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined

and tested by medical personnel.

**In Case of Ingestion:** Do NOT induce vomiting. Wash out mouth with water provided person is conscious. Never give

anything by mouth to an unconscious person. Get medical attention.

4.2 Important Symptoms and Circulatory collapse with clammy skin, weak and rapid pulse, shallow respirations, and scanty urine

Effects, Both Acute and may follow

may follow ingestion or skin contact.

**Delayed:** Ingestion may cause: Sore throat, vomiting, and diarrhea.

Irritating to the skin, eyes, nose, throat, and respiratory tract.

## Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Use alcohol-resistant foam, carbon dioxide, or dry chemical spray.

Media:

Unsuitable Extinguishing DO NOT USE WATER.

Media:

5.2 Flammable Properties and Concentrated solutions react violently with water, spattering and liberating heat.

**Hazards:** Emits toxic and corrosive fumes under fire conditions.

Not Flammable, but reacts with most metals to form flammable hydrogen gas.

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

**5.3** Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or



Page: 3 of 6

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1 Protective Precautions,** Avoid breathing vapors and provide adequate ventilation.

Protective Equipment and As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator,

**Emergency Procedures:** and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental** Take steps to avoid release into the environment, if safe to do so.

**Precautions:** 

**6.3 Methods and Material For** Contain spill and collect, as appropriate.

Containment and Cleaning Transfer to a chemical waste container for disposal in accordance with local regulations.

Up:

## Section 7. Handling and Storage

**7.1 Precautions To Be Taken** Avoid breathing dust/fume/gas/mist/vapours/spray.

in Handling: Avoid prolonged or repeated exposure.

**7.2** Precautions To Be Taken Keep container tightly closed.

in Storing: Store in accordance with information listed on the product insert.

## Section 8. Exposure Controls/Personal Protection

### 8.1 Exposure Parameters:

CAS#	Partial Chemical Name	Britain EH40	France VL	Europe
12054-85-2	Ammonium molybdate, tetrahydrate	No data.	No data.	No data.
7664-93-9	Sulfuric acid	No data.	TWA: 1.0 mg/m3 STEL: 3.0 mg/m3	No data.
7732-18-5	Water	No data.	No data.	No data.
CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
12054-85-2	Ammonium molybdate, tetrahydrate	No data.	No data.	No data.
7664-93-9	Sulfuric acid	PEL: 1 mg/m3	TLV: (1 mg/m3) STEL: (3 mg/m3)	No data.
7732-18-5	Water	No data.	No data.	No data.

### 8.2 Exposure Controls:

8.2.1 Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne

(Ventilation etc.): levels below recommended exposure limits.

8.2.2 Personal protection equipment:

Eye Protection: Safety glasses

Protective Gloves: Compatible chemical-resistant gloves

Other Protective Clothing: Lab coat

**Respiratory Equipment** NIOSH approved respirator, as conditions warrant.

(Specify Type):

Work/Hygienic/Maintenan Do not take internally.

ce Practices: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety

shower.

Wash thoroughly after handling.

No data available.



Page: 4 of 6

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

## Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties
Physical States: [ ] Gas [ X ] Liquid [ ] Solid

Appearance and Odor:SolutionMelting Point:No data.Boiling Point:No data.Flash Pt:No data.Evaporation Rate:No data.

Flammability (solid, gas): No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

No data.

Vapor Pressure (vs. Air or mm

Hg):

Vapor Density (vs. Air = 1): No data.

Specific Gravity (Water = 1): No data.

Solubility in Water: No data.

Autoignition Pt: No data.

9.2 Other Information

Percent Volatile: No data.

## Section 10. Stability and Reactivity

**10.1 Reactivity:** No data available.

**10.2 Stability:** Unstable [ ] Stable [ X ]

**10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.

**Polymerization:** Will occur [ ] Will not occur [ X ]

10.4 Conditions To Avoid: heat10.5 Incompatibility - Materials bases

To Avoid: halogens

hydrides lithium

metal acetylides

metals

organic material

oxides

potassium chlorate potassium perchlorate potassium permanganate

sodium

strong oxidizing agents strong reducing agents

water

**10.6** Hazardous carbon dioxide

**Decomposition or** hydrogen cyanide **Byproducts:** hydrogen sulfide



Page: 5 of 6

Revision: 05/09/2015 Supersedes Revision: 06/29/2011

## Section 11. Toxicological Information

**11.1** Information on The toxicological effects of this compound have not been thoroughly studied.

**Toxicological Effects:** Sulfuric acid - Toxicity Data: Oral LD50 (rat): 2,140 mg/kg; Inhalation TCLO (human): 0.63 mg/m3;

Inhalation LC50 (mouse): 320 mg/m3; Inhalation LC50 (guinea pig): 18 mg/m3 (8hr);

Sulfuric acid - Irritation Data: Eyes (rabbit): 5 mg (30s) severe;

**Chronic Toxicological** Sulfuric acid - Investigated as a reproductive effector.

Effects: Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.

See actual entry in RTECS for complete information.

Sulfuric Acid RTECS Number: WS5600000

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

CAS#	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
12054-85-2	Ammonium molybdate, tetrahydrate	n.a.	n.a.	n.a.	n.a.
7664-93-9	Sulfuric acid	Known	Unknown	A2	n.a.
7732-18-5	Water	n.a.	n.a.	n.a.	n.a.

## Section 12. Ecological Information

**12.1 Toxicity:** Avoid release into the environment.

Runoff from fire control or dilution water may cause pollution.

**12.2** Persistence and No data available.

Degradability:

**12.3** Bioaccumulative No data available.

Potential:

**12.4 Mobility in Soil:** No data available.

**12.5** Results of PBT and vPvB No data available.

assessment:

**12.6** Other adverse effects: No data available.

# Section 13. Disposal Considerations

**13.1** Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

# Section 14. Transport Information

#### 14.1 LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Sulphuric Acid with 51% or less acid

**DOT Hazard Class:** 8 CORROSIVE

UN/NA Number: 2796 Packing Group: ||



#### 14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Sulphuric acid, with 51% or less acid

UN Number: 2796 Packing Group: ||

Hazard Class: 8 - CORROSIVE





Revision: 05/09/2015 Supersedes Revision: 06/29/2011

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Sulphuric acid, with 51% or less acid

UN Number: 2796 Packing Group: || Hazard Class: 8 - CORROSIVE IATA Classification: 8

**Additional Transport** 

Transport in accordance with local, state, and federal regulations.

Information:

## Section 15. Regulatory Information

### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
12054-85-2	Ammonium molybdate, tetrahydrate	No	No	No
7664-93-9	Sulfuric acid	Yes 1000 LB	Yes 1000 LB	Yes
7732-18-5	Water	No	No	No

CAS#	Hazardous Components (Chemical Name)	Other US EPA or State Lists
12054-85-2	Ammonium molybdate, tetrahydrate	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
7664-93-9	Sulfuric acid	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
7732-18-5	Water	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

Regulatory Information This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC)

Statement: No.1272/2008.

## Section 16. Other Information

**Revision Date:** 05/09/2015

Additional Information About No data available.

This Product:

Company Policy or Disclaimer: DISCLAIMER: This information is believed to be accurate and represents the best information

currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for

their particular purposes.