

# SAFETY DATA SHEET

## FOR INDUSTRIAL USE ONLY

### Cascoset(TM) FM-302W

#### Section 1. Product and company identification

**GHS product identifier** : Cascoset(TM) FM-302W  
**MSDS Number** : 000000103973  
**Product type** : Catalyst  
**Material uses** : Resins.

**Manufacturer/Supplier/Importer** : Hexion Inc.  
 180 East Broad Street  
 Columbus, Ohio  
 43215 USA

**Contact person** : 4information@hexion.com

**Telephone** : For additional health and safety or regulatory information, call  
 1 888 443 9466.

**Emergency telephone number** : For Emergency Medical Assistance  
 Call Health & Safety Information Services  
 1-866-303-6949


For Emergency Transportation Information  
 CHEMTREC US Domestic (800) 424-9300  
 CHEMTREC International (703) 527-3887  
 CANUTEC CA Domestic (613) 996-6666

Part of the CASCO® Brand of Adhesives and Resins from Hexion Inc.

#### Section 2. Hazards identification

**Classification of the substance or mixture** : COMBUSTIBLE DUSTS  
 SKIN CORROSION/IRRITATION - Category 2  
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)  
 [nervous system] - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) [systemic toxicity] - Category 1

#### GHS label elements

**Hazard pictograms** : 

**Signal word** : Danger

**Hazard statements** : May form combustible dust concentrations in air.  
 H315 Causes skin irritation.

H319 Causes serious eye irritation.  
H371 May cause damage to organs (nervous system)  
H372 Causes damage to organs through prolonged or repeated exposure: (systemic toxicity)

### Precautionary statements

<b>General</b>	:	Not applicable.
<b>Prevention</b>	:	<p>Wear protective gloves.  Wear eye or face protection.  Do not breathe dust or mist.  Do not eat, drink or smoke when using this product.  Wash hands thoroughly after handling.</p>
<b>Response</b>	:	<p>Get medical attention if you feel unwell.  IF exposed or if you feel unwell:  Call a POISON CENTER or physician.  <b>IF ON SKIN:</b>  Wash with plenty of soap and water.  Take off contaminated clothing.  Wash contaminated clothing before reuse.  If skin irritation occurs:  Get medical attention.  <b>IF IN EYES:</b>  Rinse cautiously with water for several minutes.  Remove contact lenses, if present and easy to do. Continue rinsing.  If eye irritation persists:  Get medical attention.</p>
<b>Storage</b>	:	Store locked up.
<b>Disposal</b>	:	Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Other hazards which do not result in classification</b>	:	<p>Unclassified Hazard - Combustible Dust  Combustible dust when finely divided and suspended in air. Fine dust clouds may form explosive mixtures with air. Product can explode if dust cloud is formed and ignited.</p> <p>Minimize airborne dust. Eliminate all fire/ignition sources including static discharges near product/package. Prevent dust accumulation. Refer to Handling Section 7 of the MSDS for more information.</p> <p>Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.</p>

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	% by weight	CAS
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		number
Kaolinite (H4Al2Si2O9)	50 - 70	1318-74-7
Ammonium Chloride	15 - 20	12125-02-9

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 10 minutes. Get medical attention. If necessary, call a poison center or physician.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 following exposure or if feeling unwell. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : 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 following exposure or if feeling unwell. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. 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.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first aid personnel** : No action shall be taken involving any personal risk or without suitable training. 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 water spray or mist, dry chemical, foam or CO2.
- Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : Combustible solid that burns. Fine dust clouds may form explosive mixtures with air.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
nitrogen oxides  
halogenated compounds  
metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : 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 action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Minimize airborne dust and eliminate all fire/ignition sources. Clean up spill as soon as possible using procedures described below. Avoid breathing dust. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and material for containment and cleaning up

**Small spill** : Move containers from spill area. Do not use air hoses for cleaning. Minimize dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Use spark-proof tools and explosion-proof equipment. Vacuums with explosion-proof motors should be used. Dispose of via a licensed

### Large spill

- : waste disposal contractor.
- : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid creating dusty conditions and prevent wind dispersal. Do not use air hoses for cleaning. Minimize dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Use spark-proof tools and explosion-proof equipment. Vacuums with explosion-proof motors should be used. Dispose of via a licensed waste disposal contractor. Note: see section 1 of SDS for emergency contact information and section 13 of SDS for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

- : Put on appropriate personal protective equipment (see section 8 of SDS). Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

#### **COMBUSTIBLE DUST HANDLING PROCEDURES:**

Combustible dusts at sufficient concentrations can form explosive mixtures with air. High dust concentrations should be avoided. Follow US NFPA Standard 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids," UK HSE Guidance HSG 103, approved Codes of Practice (ACOPS) established for Explosive Atmospheres under the ATEX Directive 1999/92/EC for worker protection and ATEX Directive 94/9/EC that regulates equipment and protection systems used in potentially explosive atmospheres or other national guidance on safe handling of combustible dusts. Train workers in the recognition and prevention of hazards associated with combustible dust in the plant.

Minimize airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Use continuous suction at points of dust generation to capture and minimize the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimize the probability of a "secondary" explosion. According to NFPA Standard 654, dust layers 1/32 in.(0.8 mm) thick can be sufficient to warrant

immediate cleaning of the area.

Control sources of static electricity. This product or the package itself can accumulate static charges, and static discharge can be a source of ignition. Solids handling systems must be designed in accordance with applicable NFPA standards (including 654 and 77) and other national guidance. Do not empty directly into flammable solvents or in the presence of flammable vapors. The operator, the packaging container and all equipment must be grounded with electrical bonding and grounding systems. Plastic bags and plastics cannot be grounded, and antistatic bags do not completely protect against development of static charges.

**Advice on general occupational hygiene**

- : 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 accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10 of SDS) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep away from heat, hot surfaces, sparks and flame. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Kaolinite (H4Al2Si2O9)	<b>ACGIH TLV ( ) Particles (Insoluble or Poorly Soluble) Not Otherwise Specified</b> Time Weighted Average (TWA) 10 mg/m3 Form: inhalable particulate <b>OSHA - PEL Z3 ( )</b> Time Weighted Average (TWA) 5 mg/m3 Form: respirable particulate <b>Time Weighted Average (TWA) 15 mg/m3 Form: total dust</b>
Ammonium Chloride	<b>NIOSH REL (1994-06-01)</b> Time Weighted Average (TWA) 10 mg/m3 Form: Fume <b>Pollutant concentration that should not be exceeded during working hours and which workers are believed to be exposed during a period of 15 minutes maximum, without experiencing: a) irritation. b) chronic or irreversible tissue damage. c) dependent toxic effects of exposure rate. d) Narcosis of sufficient magnitude to increase susceptibility to accidents. e) The reduction of ability to get to safety by their own means.</b> 20 mg/m3 Form: Fume <b>ACGIH TLV (1994-09-01)</b> Time Weighted Average (TWA) 10 mg/m3 Form: Fume

	<b>Short Term Exposure Limit (STEL)</b> 20 mg/m <sup>3</sup> Form: Fume
Walnut Shell Flour	<b>ACGIH TLV ()</b> Time Weighted Average (TWA) 3 mg/m <sup>3</sup> Form: respirable <b>Time Weighted Average (TWA)</b> 10 mg/m <sup>3</sup> Form: inhalable
Aluminium sulfate	<b>NIOSH REL (1994-06-01) Calculated as AI</b> Time Weighted Average (TWA) 2 mg/m <sup>3</sup> <b>ACGIH TLV (1994-09-01) Calculated as AI</b> Time Weighted Average (TWA) 2 mg/m <sup>3</sup> Form: Soluble
Kaolinite (H <sub>4</sub> Al <sub>2</sub> Si <sub>2</sub> O <sub>9</sub> )	<b>ACGIH TLV () Particles (Insoluble or Poorly Soluble) Not Otherwise Specified</b> Time Weighted Average (TWA) 10 mg/m <sup>3</sup> Form: inhalable particulate <b>OSHA - PEL Z3 ()</b> Time Weighted Average (TWA) 5 mg/m <sup>3</sup> Form: respirable particulate <b>Time Weighted Average (TWA)</b> 15 mg/m <sup>3</sup> Form: total dust
Ammonium Chloride	<b>NIOSH REL (1994-06-01)</b> Time Weighted Average (TWA) 10 mg/m <sup>3</sup> Form: Fume <b>Pollutant concentration that should not be exceeded during working hours and which workers are believed to be exposed during a period of 15 minutes maximum, without experiencing: a) irritation. b) chronic or irreversible tissue damage. c) dependent toxic effects of exposure rate. d) Narcosis of sufficient magnitude to increase susceptibility to accidents. e) The reduction of ability to get to safety by their own means.</b> 20 mg/m <sup>3</sup> Form: Fume <b>ACGIH TLV (1994-09-01)</b> Time Weighted Average (TWA) 10 mg/m <sup>3</sup> Form: Fume <b>Short Term Exposure Limit (STEL)</b> 20 mg/m <sup>3</sup> Form: Fume

- 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- 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**

- |                            |   |   |
|----------------------------|---|---|
| <b>Hygiene measures</b>    | : | 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.   |
| <b>Eye/face protection</b> | : | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles. If operating conditions cause high dust concentrations to be produced, use dust goggles. |

### **Skin protection**

- |                               |   |  |
|-------------------------------|---|--|
| <b>Hand protection</b>        | : | Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. |
| <b>Body protection</b>        | : | Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product., For PPE selection see National Fire Protection Association (NFPA) 2113, Standard on Selection, Care, Use and Maintenance of Flame-Resistant Garments for Protection of Industrial Personnel Against Flash Fire.   |
| <b>Other skin protection</b>  | : | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.  |
| <b>Respiratory protection</b> | : | Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.  |

## **Section 9. Physical and chemical properties**

### **Appearance**

- |                       |   |                 |
|-----------------------|---|-----------------|
| <b>Physical state</b> | : | Powder          |
| <b>Color</b>          | : | Tan.            |
| <b>Odor</b>           | : | Slight ammonia  |
| <b>Odor threshold</b> | : | Not available   |
| <b>pH</b>             | : | Not applicable. |



<b>Melting point/ Freezing point</b>	:	Not applicable.
<b>Boiling point</b>	:	Not applicable.
<b>Flash point</b>	:	Not defined for solids
<b>Burning time</b>	:	Not available
<b>Burning rate</b>	:	Not available
<b>Evaporation rate</b>	:	Not applicable.
<b>Flammability (solid, gas)</b>	:	Not available
<b>Lower and upper explosive (flammable) limits</b>	:	<b>Lower:</b> Not applicable. <b>Upper:</b> Not applicable.
<b>Vapor pressure</b>	:	Not applicable.
<b>Vapor density</b>	:	Not available
<b>Relative density</b>	:	0.4 - 0.7
<b>Solubility</b>	:	Not available
<b>Solubility in water</b>	:	Not available
<b>Partition coefficient: n-octanol/water</b>	:	Not available
<b>Auto-ignition temperature</b>	:	Not available
<b>Decomposition temperature</b>	:	Not available
<b>SADT</b>	:	Not available
<b>Viscosity</b>	:	<b>Dynamic:</b> Not available <b>Kinematic:</b> Not available

#### Other information

*The SDS is not to be used as a specification sheet. For Specific technical information on the product listed above, a sales specification sheet should be obtained from your Hexion representative.*

## Section 10. Stability and reactivity

<b>Reactivity</b>	:	Stable under normal conditions.
<b>Chemical stability</b>	:	The product is stable.
<b>Possibility of hazardous reactions</b>	:	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>Conditions to avoid</b>	:	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. See Section 7 Handling.
<b>Incompatible materials</b>	:	Reactive or incompatible with the following materials: oxidizing materials acids

**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

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium Chloride				
	LD50 Oral	Rat	1,650 mg/kg	-

**Conclusion/Summary** : Not available

#### Irritation/Corrosion

**Conclusion/Summary**

**Skin** : Not available  
**eyes** : Not available  
**Respiratory** : Not available

#### Sensitization

**Conclusion/Summary**

**Skin** : Not available  
**Respiratory** : Not available

#### Mutagenicity

**Conclusion/Summary**

: Not available

#### Carcinogenicity

**Conclusion/Summary**

: Not available

#### Reproductive toxicity

**Conclusion/Summary**

: Not available

#### Teratogenicity

**Conclusion/Summary**

: Not available

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

Product/ingredient name	Category	Route of exposure	Target organs
Kaolinite (H4Al2Si2O9)	Category 3		Respiratory tract irritation
Ammonium Chloride	Category 3 Category 2		Respiratory tract irritation nervous system

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

Product/ingredient name	Category	Route of exposure	Target organs
Ammonium Chloride	Category 1		systemic toxicity

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#### **Aspiration hazard**

Not available

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

#### **Potential acute health effects**

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
**Skin contact** : Causes skin irritation.  
**Ingestion** : Irritating to mouth, throat and stomach.

#### **Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness  
**Inhalation** : Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing  
**Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness  
**Ingestion** : No specific data.

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

##### **Short term exposure**

**Potential immediate effects** : Not available  
**Potential delayed effects** : Not available

##### **Long term exposure**

**Potential immediate effects** : Not available  
**Potential delayed effects** : Not available

#### **Potential chronic health effects**

**Conclusion/Summary** : Not available

**General** : Causes damage to organs through prolonged or repeated exposure: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

**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**

Route	ATE value
Oral	9,666 mg/kg

**Section 12. Ecological information****Toxicity**

Product/ingredient name	Result	Species	Exposure
kaolinite			
	Acute LC50 1,125,000 µg/l Fresh water	Aquatic invertebrates. Water flea	48 h

**Conclusion/Summary** : Not available

**Persistence/degradability**

**Conclusion/Summary** : Not available

**Mobility in soil**

**Soil/water partition coefficient (KOC)** : Not available

**Other adverse 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 at all times 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 emptied 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.

**Section 14. Transport information**

The data provided in this section is for information only and may not be specific to your package size or

mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

#### International transport regulations

Regulatory information	UN/NA number	Proper shipping name	Classes/*PG	Reportable Quantity (RQ)
CFR		Non-regulated		
TDG		Non-regulated		
IMO/IMDG		Non-regulated		
IATA (Cargo)		Non-regulated		

\*PG : Packing group

**Special precautions for user** : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

### United States

**U.S. Federal regulations** : **United States - TSCA 12(b) - Chemical export notification:** None required.  
**United States - TSCA 5(a)2 - Final significant new use rules:** Not listed  
**United States - TSCA 5(a)2 - Proposed significant new use rules:** Not listed  
**United States - TSCA 5(e) - Substances consent order:** Not listed

### SARA 313

		Product name	CAS number
<b>Form R - Reporting requirements</b>	:	Ammonium chloride ((NH <sub>4</sub> )Cl)	12125-02-9
<b>Supplier notification</b>	:	Ammonium chloride ((NH <sub>4</sub> )Cl)	12125-02-9

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.

**California Prop. 65:** : None required.

**United States inventory (TSCA 8b)** : All components are listed or exempted.

### Canada

**WHMIS (Canada)** : Class D-2B: Material causing other toxic effects (Toxic).

### Canadian lists

**Canadian NPRI** : The following components are listed: Ammonium chloride ((NH<sub>4</sub>)Cl)

**CEPA Toxic substances** : None required.

### International regulations

**International lists** :

- Australia inventory (AICS):** Not determined.
- Taiwan inventory (CSNN):** All components are listed or exempted.
- Canada inventory:** At least one component is not listed in DSL but all such components are listed in NDSL.
- Japan inventory:** Not determined.
- China inventory (IECSC):** All components are listed or exempted.
- Korea inventory:** Not determined.
- New Zealand Inventory (NZIoC):** Not determined.
- Philippines inventory (PICCS):** Not determined.
- United States inventory (TSCA 8b):** All components are listed or exempted.

## Section 16. Other information

**Hazardous Material Information System III (U.S.A.) :**

<b>Health</b>	*	2
<b>Flammability</b>		3
<b>Physical hazards</b>		0

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

**Full text of abbreviated H statements** : Not applicable.

### History

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**Date of previous issue** : 11/20/2010

**Version** : 5.0

**Prepared by** : Product Safety Stewardship

**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)
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- UN = United Nations

**References** : Not available

**Notice to reader**

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