

# ***Chem-Impex International Inc.***

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## **SAFETY DATA SHEET**

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### **SECTION 1. CHEMICAL IDENTIFICATION**

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|                                 |   |
|---------------------------------|---|
| CATALOG #:                      | 30149   |
| NAME:                           | Ammonium chloride                                   |
| SYNONYMS:                       |   |
| 24 HOUR EMERGENCY<br>TELEPHONE: | (800) 535-5053(USA)<br>352-323-3500 (INTERNATIONAL) |
| TO REQUEST AN MSDS:             | (800) 869-9290                                      |
| CUSTOMER<br>SERVICE:            | (630) 766-2112                                      |

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### **SECTION 2. HAZARDS IDENTIFICATION**

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#### **CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)**  
ACUTE TOXICITY, ORAL (CATEGORY 4), H302  
EYE IRRITATION (CATEGORY 2A), H319  
SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 2), H401

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS  
PICTOGRAM**



SIGNAL WORD

WARNING

**HAZARD STATEMENT(S)**

H302 HARMFUL IF SWALLOWED.  
H319 CAUSES SERIOUS EYE IRRITATION.  
H401 TOXIC TO AQUATIC LIFE

**PRECAUTIONARY STATEMENT(S)**

P264 WASH SKIN THOROUGHLY AFTER HANDLING.  
P270 DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.  
P273 AVOID RELEASE TO THE ENVIRONMENT.  
P280 WEAR EYE PROTECTION/ FACE PROTECTION.  
P301 + P312 + P330 IF SWALLOWED: CALL A POISON CENTER OR DOCTOR/ PHYSICIAN IF YOU FEEL UNWELL. RINSE MOUTH.  
P305 + P351 + P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING.  
P337 + P313 IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ ATTENTION.  
P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

**HAZARDS NOT  
OTHERWISE  
CLASSIFIED (HNOC)  
OR NOT COVERED  
BY GHS**

NONE

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

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MF:  $\text{NH}_4\text{Cl}$   
MW: 53.49  
CAS-NO. 12125-02-9  
PURITY:  $\geq 99.5\%$  (Assay by titration)

**HAZARDOUS COMPONENTS**

| COMPONENT                | CLASSIFICATION                             | CONCENTRATION |
|--------------------------|--|---------------|
| <b>Ammonium chloride</b> |  |               |
|                          | ACUTE TOX. 4; EYE IRRIT. 2A;<br>H302, H319 | $\leq 100\%$  |

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FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

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## **SECTION 4. FIRST-AID MEASURES**

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### **DESCRIPTION OF FIRST AID MEASURES**

|   |   |
|---|---|
| <b>GENERAL ADVICE</b>   | CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.            |
| <b>IF INHALED</b>   | IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.     |
| <b>IN CASE OF SKIN CONTACT</b>  | WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.  |
| <b>IN CASE OF EYE CONTACT</b>   | RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.                              |
| <b>IF SWALLOWED</b>   | NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.                 |
| <b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>                | THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11 |
| <b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b> | NO DATA AVAILABLE   |

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## **SECTION 5. FIRE AND EXPLOSION DATA**

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### **EXTINGUISHING MEDIA**

|  |  |
|--|--|
| <b>SUITABLE EXTINGUISHING MEDIA</b>                          | USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE. |
| <b>SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b> | NITROGEN OXIDES (NOX), HYDROGEN CHLORIDE GAS                             |

**ADVICE FOR  
FIREFIGHTERS**

WEAR SELF-CONTAINED BREATHING APPARATUS FOR  
FIREFIGHTING IF NECESSARY.

**FURTHER INFORMATION**

NO DATA AVAILABLE

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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**PERSONAL  
PRECAUTIONS,  
PROTECTIVE  
EQUIPMENT AND  
EMERGENCY  
PROCEDURES**

USE PERSONAL PROTECTIVE EQUIPMENT. AVOID  
DUST FORMATION. AVOID BREATHING VAPOURS, MIST  
OR GAS. ENSURE ADEQUATE VENTILATION. AVOID  
BREATHING DUST.  
FOR PERSONAL PROTECTION SEE SECTION 8.

**ENVIRONMENTAL  
PRECAUTIONS**

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE  
TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.  
DISCHARGE INTO THE ENVIRONMENT MUST BE  
AVOIDED.

**METHODS AND  
MATERIALS FOR  
CONTAINMENT AND  
CLEANING UP**

PICK UP AND ARRANGE DISPOSAL WITHOUT  
CREATING DUST. SWEEP UP AND SHOVEL. KEEP IN  
SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

**REFERENCE TO OTHER  
SECTIONS**

FOR DISPOSAL SEE SECTION 13.

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**SECTION 7. HANDLING AND STORAGE**

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**PRECAUTIONS FOR SAFE  
HANDLING**

AVOID CONTACT WITH SKIN AND EYES. AVOID  
FORMATION OF DUST AND AEROSOLS. FURTHER  
PROCESSING OF SOLID MATERIALS MAY RESULT IN  
THE FORMATION OF COMBUSTIBLE DUSTS. THE  
POTENTIAL FOR COMBUSTIBLE DUST FORMATION  
SHOULD BE TAKEN INTO CONSIDERATION BEFORE  
ADDITIONAL PROCESSING OCCURS.  
PROVIDE APPROPRIATE EXHAUST VENTILATION AT  
PLACES WHERE DUST IS FORMED.  
FOR PRECAUTIONS SEE SECTION 2.2.

**CONDITIONS FOR SAFE  
STORAGE, INCLUDING  
ANY INCOMPATIBILITIES**

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND  
WELL-VENTILATED PLACE.  
HYGROSCOPIC. KEEP IN A DRY PLACE.

Store at RT

**SPECIFIC END USE(S)**

APART FROM THE USES MENTIONED IN SECTION 1.2  
NO OTHER SPECIFIC USES ARE STIPULATED

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**CONTROL PARAMETERS****COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

| COMPONENT         | CAS-NO.    | VALUE  | CONTROL PARAMETERS | BASIS  |
|-------------------|------------|--|--------------------|--|
| Ammonium chloride | 12125-02-9 | TWA  | 10 MG/M3           | USA. ACGIH THRESHOLD LIMIT VALUES (TLV)                          |
|                   | REMARKS    | UPPER RESPIRATORY TRACT IRRITATION<br>EYE IRRITATION |                    |  |
|                   |            | STEL   | 20 MG/M3           | USA. ACGIH THRESHOLD LIMIT VALUES (TLV)                          |
|                   |            | UPPER RESPIRATORY TRACT IRRITATION<br>EYE IRRITATION |                    |  |
|                   |            | TWA  | 10 MG/M3           | USA. NIOSH RECOMMENDED EXPOSURE LIMITS                           |
|                   |            | ST   | 20 MG/M3           | USA. NIOSH RECOMMENDED EXPOSURE LIMITS                           |
|                   |            | PEL  | 10 MG/M3           | CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS |
|                   |            | STEL   | 20 MG/M3           | CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS |

**EXPOSURE CONTROLS****APPROPRIATE  
ENGINEERING  
CONTROLS**

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL  
HYGIENE AND SAFETY PRACTICE. WASH HANDS  
BEFORE BREAKS AND AT THE END OF WORKDAY.

**PERSONAL PROTECTIVE EQUIPMENT****EYE/FACE PROTECTION**

SAFETY GLASSES WITH SIDE-SHIELDS CONFORMING TO  
EN166 USE EQUIPMENT FOR EYE PROTECTION TESTED  
AND APPROVED UNDER APPROPRIATE GOVERNMENT  
STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).

**SKIN PROTECTION**

HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.

**FULL CONTACT**

MATERIAL: NITRILE RUBBER

MINIMUM LAYER THICKNESS: 0.11 MM

BREAK THROUGH TIME: 480 MIN

MATERIAL TESTED:DERMATRIL (KCL 740, SIZE M)

**SPLASH CONTACT**

MATERIAL: NITRILE RUBBER

MINIMUM LAYER THICKNESS: 0.11 MM

BREAK THROUGH TIME: 480 MIN

MATERIAL TESTED:DERMATRIL (KCL 740, SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE CE APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.

**BODY PROTECTION**

COMPLETE SUIT PROTECTING AGAINST CHEMICALS, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

**RESPIRATORY PROTECTION**

FOR NUISANCE EXPOSURES USE TYPE P95 (US) OR TYPE P1 (EU EN 143) PARTICLE RESPIRATOR.FOR HIGHER LEVEL PROTECTION USE TYPE OV/AG/P99 (US) OR TYPE ABEK-P2 (EU EN 143) RESPIRATOR CARTRIDGES. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

**CONTROL OF ENVIRONMENTAL EXPOSURE**

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

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**SECTION 9.      PHYSICAL AND CHEMICAL PROPERTIES**

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**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

|   |                                     |
|---|-------------------------------------|
| APPEARANCE                              | White crystalline powder            |
| ODOUR                                   | NO DATA AVAILABLE                   |
| ODOUR THRESHOLD                         | NO DATA AVAILABLE                   |
| PH                                      | 4.5 - 5.5 AT 50.00000 G/L AT 20.0 C |
| MELTING                                 |                                     |
| POINT/FREEZING POINT                    |                                     |
| INITIAL BOILING POINT                   |                                     |
| AND BOILING RANGE                       |                                     |
| FLASH POINT                             |                                     |
| EVAPORATION RATE                        | NO DATA AVAILABLE                   |
| FLAMMABILITY (SOLID, GAS)               | NO DATA AVAILABLE                   |
| UPPER/LOWER                             | NO DATA AVAILABLE                   |
| FLAMMABILITY OR                         |                                     |
| EXPLOSIVE LIMITS                        |                                     |
| VAPOUR PRESSURE                         | 1.3 HPA AT 160.4 C                  |
| VAPOUR DENSITY                          | NO DATA AVAILABLE                   |
| RELATIVE DENSITY                        | 1.53 (Lit.)                         |
| WATER SOLUBILITY                        | SOLUBLE                             |
| PARTITION COEFFICIENT: N- OCTANOL/WATER | NO DATA AVAILABLE                   |
| AUTO-IGNITION                           | NO DATA AVAILABLE                   |
| TEMPERATURE                             |                                     |
| DECOMPOSITION                           | NO DATA AVAILABLE                   |
| TEMPERATURE                             |                                     |
| VISCOSITY                               | NO DATA AVAILABLE                   |
| EXPLOSIVE PROPERTIES                    | NO DATA AVAILABLE                   |
| OXIDIZING PROPERTIES                    | NO DATA AVAILABLE                   |

**OTHER SAFETY INFORMATION**

|              |           |
|--------------|-----------|
| BULK DENSITY | 500 KG/M3 |
|--------------|-----------|

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**SECTION 10.      STABILITY AND REACTIVITY**

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|                                    |  |
|------------------------------------|--|
| REACTIVITY                         | NO DATA AVAILABLE                                |
| CHEMICAL STABILITY                 | STABLE UNDER RECOMMENDED STORAGE CONDITIONS.     |
| POSSIBILITY OF HAZARDOUS REACTIONS | NO DATA AVAILABLE                                |
| CONDITIONS TO AVOID                | EXPOSURE TO MOISTURE MAY AFFECT PRODUCT QUALITY. |

|   |  |
|---|--|
| <b>INCOMPATIBLE MATERIALS</b>           | STRONG ACIDS, STRONG BASES, STRONG OXIDIZING AGENTS  |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS</b> | OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE<br>HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS. - NITROGEN OXIDES (NOX), HYDROGEN CHLORIDE GAS<br>IN THE EVENT OF FIRE: SEE SECTION 5 |

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## SECTION 11. TOXICOLOGICAL INFORMATION

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### INFORMATION ON TOXICOLOGICAL EFFECTS

|  |   |
|--|---|
| <b>ACUTE TOXICITY</b>                    | LD50 ORAL - RAT - MALE AND FEMALE - 1,410 MG/KG (OECD TEST GUIDELINE 401)<br><br>INHALATION: NO DATA AVAILABLE<br><br>LD50 DERMAL - RAT - MALE AND FEMALE - > 2,000 MG/KG<br>REMARKS: (ECHA)<br><br>NO DATA AVAILABLE   |
| <b>SKIN CORROSION/IRRITATION</b>         | SKIN - RABBIT<br>RESULT: NO SKIN IRRITATION - 24 H (DRAIZE TEST)  |
| <b>SERIOUS EYE DAMAGE/EYE IRRITATION</b> | EYES - RABBIT<br>RESULT: EYE IRRITATION<br>REMARKS: (ECHA)  |
| <b>RESPIRATORY OR SKIN SENSITISATION</b> | MAXIMISATION TEST - GUINEA PIG<br>RESULT: NEGATIVE<br>(OECD TEST GUIDELINE 406)   |
| <b>GERM CELL MUTAGENICITY</b>            | AMES TEST<br>ESCHERICHIA COLI/SALMONELLA TYPHIMURIUM<br>RESULT: NEGATIVE<br>MUTAGENICITY (MAMMAL CELL TEST):<br>CHROMOSOME ABERRATION.<br>CHINESE HAMSTER LUNG CELLS<br>RESULT: POSITIVE<br>OECD TEST GUIDELINE 474<br>MOUSE - MALE - BONE MARROW<br>RESULT: NEGATIVE |
| <b>CARCINOGENICITY</b>                   |   |



|       |   |
|-------|---|
| IARC: | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC. |
| NTP:  | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED CARCINOGEN BY NTP.                 |
| OSHA: | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON OSHA S LIST OF REGULATED CARCINOGENS.                                |

**REPRODUCTIVE TOXICITY** NO DATA AVAILABLE

|   |  |
|---|--|
| <b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b> | ACUTE ORAL TOXICITY - IRRITATIONS OF MUCOUS MEMBRANES IN THE MOUTH, PHARYNX, OESOPHAGUS AND GASTROINTESTINAL TRACT.<br>ACUTE INHALATION TOXICITY - POSSIBLE DAMAGES: MUCOSAL IRRITATIONS |
|---|--|

|   |                   |
|---|-------------------|
| <b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b> | NO DATA AVAILABLE |
|---|-------------------|

**ASPIRATION HAZARD** NO DATA AVAILABLE

|                               |  |
|-------------------------------|--|
| <b>ADDITIONAL INFORMATION</b> | REPEATED DOSE TOXICITY - RAT - MALE AND FEMALE - ORAL - 90 D - NO OBSERVED ADVERSE EFFECT LEVEL - 1,695.7 MG/KG<br>SUBCHRONIC TOXICITY<br>RTECS: BP4550000 |
|-------------------------------|--|

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

THE FOLLOWING APPLIES TO AMMONIUM SALTS IN GENERAL: AFTER SWALLOWING: LOCAL IRRITATION SYMPTOMS, NAUSEA, VOMITING, DIARRHOEA. SYSTEMIC EFFECT: AFTER THE UPTAKE OF VERY LARGE QANTITIES: DROP IN BLOOD PRESSURE, COLLAPSE, CNS DISORDERS, SPASMS, NARCOTIC CONDITIONS, RESPIRATORY PARALYSIS, HAEMOLYSIS.  
OTHER DANGEROUS PROPERTIES CAN NOT BE EXCLUDED.  
HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE.

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**SECTION 12. ECOLOGICAL INFORMATION**

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**TOXICITY**

|   |   |
|---|---|
| TOXICITY TO FISH  | SEMI-STATIC TEST LC50 - CYPRINUS CARPIO (CARP) -<br>209.00 MG/L - 96 H<br>REMARKS: (ECHA)           |
| TOXICITY TO DAPHNIA AND<br>OTHER AQUATIC<br>INVERTEBRATES | STATIC TEST EC50 - DAPHNIA MAGNA (WATER FLEA)<br>- 101 MG/L - 48 H<br>REMARKS: (ECHA)               |
| TOXICITY TO ALGAE   | STATIC TEST ERC50 - CHLORELLA VULGARIS (FRESH<br>WATER ALGAE) - 1,300 MG/L - 5 D<br>REMARKS: (ECHA) |
| TOXICITY TO BACTERIA                                      | STATIC TEST EC50 - ACTIVATED SLUDGE - 1,310 MG/L<br>- 0.5 H<br>(OECD TEST GUIDELINE 209)            |

**PERSISTENCE AND DEGRADABILITY**

THE METHODS FOR DETERMINING THE BIOLOGICAL DEGRADABILITY ARE NOT APPLICABLE TO INORGANIC SUBSTANCES.

**BIOACCUMULATIVE  
POTENTIAL**

NO DATA AVAILABLE

**MOBILITY IN SOIL**

NO DATA AVAILABLE

**RESULTS OF PBT AND  
VPVB ASSESSMENT**

PBT/VPVB ASSESSMENT NOT AVAILABLE AS  
CHEMICAL SAFETY ASSESSMENT NOT  
REQUIRED/NOT CONDUCTED

**OTHER ADVERSE EFFECTS**

AN ENVIRONMENTAL HAZARD CANNOT BE  
EXCLUDED IN THE EVENT OF UNPROFESSIONAL  
HANDLING OR DISPOSAL.  
TOXIC TO AQUATIC LIFE.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS****PRODUCT**

OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS  
TO A LICENSED DISPOSAL COMPANY. CONTACT A  
LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE  
TO DISPOSE OF THIS MATERIAL.

**CONTAMINATED  
PACKAGING**

DISPOSE OF AS UNUSED PRODUCT.

**DOT (US)**  
 PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARDOUS SUBSTANCES,  
 SOLID, N.O.S.(Ammonium chloride)  
 UN NUMBER: 3077  
 CLASS: 9  
 PACKING GROUP: III  
 REPORTABLE QUANTITY 5000 LBS  
 (RQ):  
 POISON INHALATION NO  
 HAZARD:

**IMDG**  
 NOT DANGEROUS GOODS

**IATA**  
 NOT DANGEROUS GOODS

|   |  |               |
|---|--|---------------|
| <b>SARA 302 COMPONENTS</b>  | NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.  |               |
| <b>SARA 313 COMPONENTS</b>  | THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DEMINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313. |               |
| <b>SARA 311/312 HAZARDS</b>                                       | ACUTE HEALTH HAZARD  |               |
| <b>MASSACHUSETTS RIGHT TO KNOW COMPONENTS</b>                     |  |               |
| NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT. |  |               |
| <b>PENNSYLVANIA RIGHT TO KNOW COMPONENTS</b>                      |  |               |
|   | CAS-NO.  | REVISION DATE |
| Ammonium chloride   | 12125-02-9   | 04-01-1994    |

| FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3. |                                |
|---|--------------------------------|
| H302  | HARMFUL IF SWALLOWED.          |
| H319  | CAUSES SERIOUS EYE IRRITATION. |
| H401  | TOXIC TO AQUATIC LIFE          |

MSDS LEGEND

|        |  |
|--------|--|
| MW:    | MOLECULAR WEIGHT   |
| MF:    | MOLECULAR FORMULA  |
| VOC:   | VOLATILE ORGANIC COMPOUNDS                                   |
| ACGIH: | AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL<br>HYGIENISTS |
| CAS:   | CHEMICAL ABSTRACTS SERVICE REGISTRY NUMBER                   |
| OSHA:  | OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION                |
| PEL:   | PERMISSIBLE EXPOSURE LIMIT (OSHA)                            |
| TLV:   | THRESHOLD LIMIT VALUE (ACGIH)                                |

IMPORTANT:

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