

# China Petrochemical Development Corporation

## Safety Data Sheet


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### 1. IDENTIFICATION OF THE CHEMICAL AND OF THE SUPPLIER

Product Name: Ammonium Sulfate
Other Name: —
Relevant Identified Uses: Used as a nitrogen fertilizer for ordinary soil and crops in agriculture. A reactant used in hydrogen peroxide, ammonium alum and ammonium chloride preparations. As the welding powder. Used as a fire retardant fabrics. Electroplating bath additives. Food grade products can be applied as a dough modifier or yeast nutrients.
Details of the Supplier: Name: China Petrochemical Development Corporation (CPDC) Tou-Fen Plant Address: No. 217, Sec.2, Tzyh-Chyang Rd., Tou-Fen City, Miaoli County, Taiwan (R.O.C.) Phone Number: 886-37-623381
Name: China Petrochemical Development Corporation (CPDC) Hsiaokang Plant Address: No. 34, Chunglin Rd., Hsiaokang Dist., Kaohsiung City, Taiwan (R.O.C.) Phone Number: 886-7-8711161
Emergency Phone Number: Tou-Fen Plant Phone Number: 886-37-623381      Fax Number: 886-37-637040 Hsiaokang Plant Phone Number: 886-7-8711161      Fax Number: 886-7-8712044

### 2. HAZARDS IDENTIFICATION

Hazard Classification: Acute toxicity, Oral (Category 5) Serious eye damage/eye irritation (Category 2B) Skin corrosion/irritation (Category 3)
Label elements: Pictogram: Exclamation mark  Signal word: Warning Hazard Statement(s): May cause respiratory irritation Causes eye irritation Causes skin irritation Harmful if swallowed Precautionary Statement(s): Wash hands thoroughly after handling. If in eyes: Rinse cautiously with water for several minutes. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Get medical advice/attention if you feel unwell.
Other hazards: —

### 3. COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE CHEMICAL

Name: Ammonium Sulfate
Synonyms: Diammonium Salt, Diammonium Sulfate
CAS No.: 7783-20-2
Hazardous Components (Percentage Composition): > 99%

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### 4. FIRST-AID MEASURES

First Aid Measures of Different Exposure Routes:

If inhaled: Remove material or move person into fresh air. If dyspnea, give artificial respiration by trained personnel. Consult a physician.

In case of skin contact: Remove contaminated clothing and leather belts. Wash off thoroughly by plenty water over 20 minutes. If continuously feeling irritation, consult a physician. Contaminated clothing and leather belts shall be disposed or cleaned before next use.

In case of eye contact: Do not rob or close the eyes. Rinse opened eyes thoroughly with plenty of water for at least 15 minutes or until the pollutant entirely removed. Avoid contaminated water enter the other eye. Consult a physician.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth by water if patient is conscious. Do not emetic. If patient vomit, lean the patient forward to avoid inhaling vomitus. If dyspnea, give artificial respiration by trained personnel. Consult a physician.

Most Important symptoms and Effects, Both Acute and Delayed: —

Essential Protection for First Aiders: —

Indication of any immediate medical attention and special treatment needed: If inhaled, oxygen can be applied. Do not execute gastric lavage or emetic.

### 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

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

Special hazards arising from the burned substance:

Irritant toxic gas may emitted in the fire, such as Sulfur oxide (SO<sub>x</sub>)、Nitrogen oxides (NO<sub>x</sub>) and Ammonia.

Special Firefighting Precautions:

Firefighters shall wear self contained breathing apparatus (SCBA) and fully covered fire preventive clothing. Remove the containers in the fire if it can be safely carried out.

Recommended Equipment for Firefighters:

Wear self contained breathing apparatus (SCBA) and fully covered fire preventive clothing.

Further information:

The product itself does not burn.

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Evacuate personnel to safe areas before polluted area entirely cleaned up. The cleaning works shall be carried out by trained personnel. Use personal protective equipment. Contaminated clothing shall be disposed or cleaned before next use. Hazardous pollutants inform Laundry personnel shall be informed with hazards of the material.

Environmental precautions:

Ventilated the area. Contact safety and environmental government authorities.

Methods and Materials for Containment and Cleaning up:

Do not touch leaked substance directly. Wash the contaminated area by plenty water. Treatment personnel shall wear dust mask. Collect the material by clean shovel and put into dry, clean and covered container. Remove it to safe place. If large amount spilled, the collected material shall be treated by qualified waste processors.

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### 7. HANDLING AND STORAGE

<p><b>Handling:</b></p> <p>Avoid dust formed. Do not contact with acids and bases. Keep container sealed when not in use. Avoid container impaired. Avoid eye and skin contacted. Avoid the material remained on clothing. The product is not flammable.</p>
<p><b>Storage:</b></p> <p>Store in cool, dry and well ventilated place. Keep away from fire. General chemical warehouse can be applied. The material shall be separated from acids, bases, strong oxidants, potassium nitrate and potassium nitrite. Leakage treatment facilities shall be equipped in the storage area.</p>

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Control: Overall or local ventilation (Local exhausting ventilation is better).			
Control Parameters			
Permissible Exposure Level TWA of 8 hour	Permissible Exposure Level STEL	Permissible Exposure Level Ceiling	Biological Exposure Indices BEIs
—	—	—	-
<p><b>Personal Protective Equipment:</b></p> <p><b>Respiratory Protection:</b> N95 (US) or P1(EN 143) dust mask</p> <p><b>Hand Protection:</b> Handle with appropriate impervious gloves. Rubber or chloroprene rubber gloves are better. Gloves must be inspected prior to use.</p> <p><b>Eye and Face Protection:</b> Face shield and safety glasses can be applied. Do not wear contact lens during operation.</p> <p><b>Skin and Body Protection:</b> Complete suit protecting with safety shoes, clothing and gloves made of appropriate material. Safety shower and eye wash equipment shall be installed at the workplace.</p>			
<p><b>Hygiene Measures:</b></p> <ol style="list-style-type: none"> <li>1. Remove the contaminated clothing after work as soon as possible. The clothing shall be washed before reuse or discard. Laundry personnel shall be informed of hazards.</li> <li>2. Smoking and eating are prohibited at the workplace.</li> <li>3. Wash hands thoroughly after handling the substance.</li> <li>4. Keep workplace clean.</li> </ol>			

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: white molten crystalline	Odor: Odourless
Odor Threshold: —	Melting point: > 280°C, decomposes at 235°C
pH Value: 5 - 6 (5% aq.sol @ 20°C)	Boiling Point or Boiling Range: —
Flammability (solid, gas): Non flammable	Flash Point: —
Decomposition Temperature: —	Explosion Range: Non explosive
Auto-ignition Temperature: —	Vapor Density: 7.9 (Air = 1)
Vapor Pressure: 0.000000004053 hPa at 25 °C	Solubility: 77 g/100ml (Water, @25°C)
Relative Density: 1.769 g/cm <sup>3</sup> (Water = 1)	Volatilization rate: —
Octanol-Water Partition Coefficient (log Kow): -5.1	Viscosity: —

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### 10. STABILITY AND REACTIVITY

Reactivity: This substance is stable under normal circumstances
Possibility of Hazardous Reactions: Reaction caused by mixing with strong oxidants.
Conditions to Avoid: Decomposition will not occur if storage compliantly.
Incompatible Materials: Copper products, strong acids and strong oxidants.
Hazardous Decomposition Products: Sulfur oxide (SO <sub>x</sub> )、Nitrogen oxides (NO <sub>x</sub> ) and Ammonia

### 11. TOXICOLOGICAL INFORMATION

Exposure Routes: Skin contact, inhalation, ingestion or eye contact.
Symptoms: Cause skin, eyes and respiratory irritation.
Acute Toxicity: Inhaled: — Skin contacted: May cause irritation Eye Contacted: May cause irritation Ingested: Irritation and burns. Toxicology Experimental Data (Experimental animals, Exposure Route): 2840 mg/kg (Rat, Oral)
Chronic Toxicity: —

### 12. ECOLOGICAL INFORMATION

Ecological Toxicity: LC <sub>50</sub> (Fish): 310 mg/l/96H EC <sub>50</sub> (Aquatic invertebrates) : 423 mg/l/48H Bio-concentration Factor (BCF) : —
Persistence and Degradability: Half-life in atmosphere: — Half-life in the surface of water: — Half-life in the ground water: — Half-life in the soil: —
Bio-accumulative Potential: —
Mobility in soil: This material in the soil will soon be decomposed by biodegradation and chemical decomposition.
Other Adverse Effects: —

### 13. DISPOSAL INFORMATION

Waste Treatment Methods: Refer to the local relevant laws and regulations for treatment. Store the waste in compliance with the regulated storage condition. Waste material shall be carefully added into soda ash and lime and then drained into ditch with plenty water.
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### 14. TRANSPORTATION INFORMATION

UN Number: —
UN Proper Shipping Name: —
Transport hazard class: —
Packaging Group: —
Marine Pollutant: —
Special precautions for users and transporters: —

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### 15. REGULATORY INFORMATION

<p>This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. Safety, Health and Environmental Regulations/Legislation Specific for the Substance</p> <ol style="list-style-type: none"> <li>1. Rules of Occupational Safety and Health Facilities</li> <li>2. Regulation of Labeling and Hazard Communication of Dangerous and Harmful Materials</li> <li>3. Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste</li> <li>4. Road traffic safety rules</li> </ol>
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### 16. OTHER INFORMATION

References	<ol style="list-style-type: none"> <li>1. CHEMINFO Database, CCINFO Disc</li> <li>2. RTECS Database, TOMES PLUS Disc, Vol.65</li> <li>3. HSDB Database, TOMES PLUS Disc, Vol.65</li> <li>4. Hazardous Chemical Database, Environmental Protection Administration of R.O.C.</li> <li>5. ChemWatch Database</li> <li>6. Chemical Book Database</li> <li>7. GHS Database, Ministry of Labor of R.O.C. (Taiwan)</li> </ol>		
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Title: Senior Engineer	Name: John Chan		
Update Date	Mar. 01, 2017		
Remark	The mark “—” are on behalf of no data available; The mark “/” are on behalf of not applicable to this substance.		
Statement	The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. China Petrochemical Development Corporation (CPDC) and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. Users shall use this information only as a supplement to other information gathered by them, and shall make independent judgment of suitability of this information to ensure proper use and protect the health and safety of users. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.		