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MATERIAL SAFETY DATA SHEET
REQUIRED UNDER SAFETY AND HEALTH REGULATION FOR SHIP REPAIRING

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DATE UPDATED: AUGUST 15, 2016

SECTION 1. - - - - - - - - - CHEMICAL IDENTIFICATION- - - - - - - - - -

Product Name Ammonium Carbonate

Product Code(s) AB0058

Recommended Use For Further Manufacturing Use Only
Not for Human or Animal Drug Use

Synonyms Hartshorn salt

SECTION 2. - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - -

Emergency Overview

WHMIS Classification

Not Rated

GHS Classification

Acute toxicity, Oral (Category 4)

GHS Label elements, including precautionary statements

Pictogram

Signal word Warning

Hazard statement(s)

H302	Harmful if swallowed.

Precautionary statement(s)

P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard:	1
Flammability:	0
Physical hazards:	0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin	Harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.
Ingestion	Harmful if swallowed.

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

Chemical Name	EC No.	CAS-No	Weight %
Ammonium carbonate	EEC No. 208-058-0	506-87-6	95-100

SECTION 4. - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - -

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5. - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -

Conditions of flammability
Not flammable or combustible.

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

Special protective equipment for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)

Explosion data - sensitivity to mechanical impact
No data available

Explosion data - sensitivity to static discharge
No data available

SECTION 6. - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - - -

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions
Do not let product enter drains.

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.

SECTION 7. - - - - - - - - - - HANDLING AND STORAGE- - - - - - - - - - -

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Air sensitive. Keep in a dry place.

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

Personal protective equipment

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).

Hand 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.

Eye 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 and 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.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Specific engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

SECTION 9. - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - -

Appearance

Form	powder
Colour	colourless

Safety data

pH	No data available
Melting point/freezing point	Melting point/range: 58 °C (136 °F)
Boiling point	No data available
Flash point	No data available
Ignition temperature	No data available

Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Density	No data available
Water solubility	slightly soluble
Partition coefficient: n-octanol/water	log Pow: 0.184
Relative vapour density	No data available
Odour	Ammonia odor
Odour Threshold	No data available
Evaporation rate	No data available

SECTION 10. - - - - - - - - -STABILITY AND REACTIVITY - - - - - - - - -

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
No data available

Conditions to avoid
No data available

Materials to avoid
Strong acids

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx) Other decomposition products - No data available

SECTION 11. - - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - -

Acute toxicity

Oral LD50
LD50 Oral - Rat - male and female - 2,150 mg/kg

LD50 Oral - Rat - female - 1,800 mg/kg

Inhalation LC50
No data available

Dermal LD50
LD50 Dermal - Rat - > 2,000 mg/kg

Other information on acute toxicity
LD50 Intravenous - Mouse - 96 mg/kg
Remarks: Lungs, Thorax, or Respiration:Respiratory stimulation. Behavioral:Convulsions or effect on seizure threshold.

Skin corrosion/irritation
Skin - in vitro assay - No skin irritation - OECD Test Guideline 439

Serious eye damage/eye irritation

Eyes - Rabbit - No eye irritation - OECD Test Guideline 405

Respiratory or skin sensitisation
in vivo assay - Mouse - OECD Test Guideline 429 - Does not cause skin sensitisation. Remarks: Read-across (Analogy)

Germ cell mutagenicity
Laboratory experiments have shown mutagenic effects.

Genotoxicity in vitro - Ames test - Salmonella typhimurium - with and without metabolic activation - negative

Carcinogenicity

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity
No data available

Teratogenicity
No data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
No data available

Aspiration hazard
No data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	Harmful if swallowed.
Skin	Harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects
No data available

Additional Information
RTECS: BP1925000

SECTION 12. - - - - - - - - - ECOLOGICAL INFORMATION - - - - - - - - - -

Toxicity

Toxicity to fish	LC50 - Fish - 119.46 mg/l - 96 h Remarks: Read-across (Analogy)
Toxicity to daphnia and other aquatic invertebrates	LC50 - Daphnia magna (Water flea) - 324.9 mg/l - 48 h
Toxicity to algae	static test EC50 - Pseudokirchneriella subcapitata (green algae) - 252.92 mg/l - 72

h

static test NOEC - Pseudokirchneriella subcapitata (green algae) - 50 mg/l - 72 h

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

PBT and vPvB assessment
No data available

Other adverse effects

No data available

SECTION 13. - - - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - - - -

Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14. - - - - - - - - - - TRANSPORT INFORMATION - - - - - - - - -

DOT (US)
UN number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Ammonium carbonate) Reportable Quantity (RQ): 5000 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15. - - - - - - - - - REGULATORY INFORMATION - - - - - - - - - -

WHMIS Classification

Not Rated

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

SECTION 16. - - - - - - - - - - OTHER INFORMATION- - - - - - - - - - - -

Issuing Date	13-Aug-2009
Revision Date	15-Aug-2016
Revision Note	No information available.
Recommended Restrictions	No information available

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS