

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION

OSTREM CHEMICAL CO. LTD.  
2310 - 80 AVENUE  
EDMONTON AB T6P 1N2

Phone: 780-440-1911 or 780-446-0177  
In Case of Emergency Only:  
phone CANUTEC at (613) 996-6666

**Product name:** AMMONIA 26 DEGREES

Code: J470

**Other name:**

**Distributed by:**

**Product use:** ammonia cleaner

**Date completed:** April 01, 2014

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	%W/W	CAS number
ammonium hydroxide (29.4% NH3)	100	1336-21-6

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### 3. HAZARDS IDENTIFICATION

Corrosive liquid. May be fatal if inhaled or swallowed. Causes severe skin and eye burns. Vapours are extremely irritating to eyes and respiratory tract.

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### 4. FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion:** Induce vomiting only on the direct advice of a poison control centre. Drink 1-2 glasses of milk or water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Eye contact:** Flush with plenty of water for at least 30 minutes, preferably 60 minutes. Hold eyelids open during flushing. After flushing, seek medical attention.

**Skin contact:** Remove contaminated clothing and flush with plenty of water for at least 30 minutes. Seek immediate medical attention.

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### 5. FIRE - FIGHTING MEASURES

**Flash point (test method):** Not applicable

**Flammable limits (%):** Non-flammable

**Lower:** Not applicable

**Upper:** Not applicable

**Fire extinguishing substances:** Use water fog, CO2 or dry chemical.

**Autoignition temperatures:** Not applicable

**Hazardous combustion products:** May liberate carbon monoxide, carbon dioxide and ammonia.

**Explosion data:**

**Sensitivity to mechanical impact:** Not applicable

**Sensitivity to static discharge:** Not applicable

**Special firefighting procedures:** Use fog to drift over liquid while flushing. Self contained breathing apparatus should be worn.

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### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Wear appropriate protective equipment.

**Environmental precautions:** Prevent from entering sewers, waterways or low areas.

**Methods for cleaning up:** Isolate hazard area and restrict access. Small spills: soak up with inert absorbent material and scoop into containers. Large spills: prevent contamination of waterways. Dike and pump into suitable containers.

Clean up residual with absorbent material, place in appropriate container and flush with water.

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## 7. HANDLING AND STORAGE

**Handling:** Do not ingest. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Storage:** Keep out of reach of children. Keep container tightly closed. Store in a cool, dry area.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:** Provide exhaust ventilation to keep airborne levels below recommended exposure limits.  
**Respiratory protection:** If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator  
**Eye protection:** Chemical goggles. Wear a face shield if splashing hazards exists.  
**Other protection:** Wear protective clothing as necessary to prevent skin contact.

**Exposure limits:**

INGREDIENT	ACGIH	OSHA	Other
ammonium hydroxide	TLV (STEL)	35 ppm	

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Liquid	<b>Solubility in water:</b> Complete
<b>Boiling point:</b> 26C	<b>Vapour pressure:</b> 475 mm Hg @ 15.5C
<b>Vapour density:</b> 0.6	<b>Evaporation rate:</b> Not available
<b>Freezing point:</b> -75C	<b>Odour threshold:</b> Not available
<b>Sp. Gravity:</b> 0.9	<b>pH:</b> highly alkaline
<b>Appearance &amp; odour:</b>	colourless liquid with pungent odour

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## 10. STABILITY AND REACTIVITY

**Stability:** Stable  
**Conditions of instability:** Not available  
**Incompatibility:** ( ) Water (X) Oxidizers (X) Acid ( ) Base (X) Other: calcium hypochlorite, bleach, gold, mercury and silver  
**Conditions of reactivity:** Not available  
**Hazardous decomposition products:** ammonia

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## 11. TOXICOLOGICAL PROPERTIES

### POTENTIAL ACUTE HEALTH EFFECTS

**Inhalation:** Corrosive! Causes severe irritation of the nose, throat and respiratory tract.  
**Ingestion:** Corrosive! This product causes severe burning and pain in the mouth, throat and abdomen. Vomiting, diarrhea and perforation of the esophagus and stomach lining may occur.  
**Eye contact:** Extremely corrosive! Causes corneal scarring and clouding. Glaucoma, cataracts and permanent blindness may occur.  
**Skin contact:** Corrosive! Burns can occur if not promptly removed.  
**Skin absorption:** Not available

### POTENTIAL CHRONIC HEALTH EFFECTS:

**Inhalation:** Repeat or prolonged exposure may cause productive cough, running nose, bronchopneumonia, pulmonary oedema and reduction of pulmonary function. Can cause injury to entire respiratory tract. Severe exposure may cause lung damage.  
**Ingestion:** Perforation of the esophagus and stomach lining may occur.  
**Eye contact:** Prolonged contact may lead to cataracts, glaucoma and permanent blindness.  
**Skin contact:** Prolonged contact may cause dermatitis or chemical burns. Toxic effects may be delayed.

**Skin absorption:** Not available  
**Irritancy of product:** See WHMIS criteria  
**Sensitization of product:** Not available  
**Carcinogenicity:** IARC (1, 2A or 2B) No known significant effects.  
ACGIH: (A1, A2 or A3) No known significant effects.  
**Reproductive toxicity:** No known significant effects.  
**Teratogenicity:** No known significant effects.  
**Mutagenicity:** No known significant effects.  
**Synergistic product:** Not available

HAZARDOUS INGREDIENTS  
ammonium hydroxide

CAS NO. TOXICITY DATA  
1336-21-6 LD<sub>50</sub> Oral (rat) 350 mg/kg

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## 12. ECOLOGICAL INFORMATION

**Ecotoxicological information:** Not available  
**Other information:**

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## 13. DISPOSAL CONSIDERATIONS

**Waste disposal:** Disposal of all waste must be done according to local, provincial and federal regulations.

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## 14. TRANSPORT INFORMATION

**TDG classification:** AMMONIA SOLUTION; Class 8; UN 2672; PG III

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## 15. REGULATORY INFORMATION

**WHMIS:** E Corrosive Material  
D1B Material Causing Immediate & Serious Toxic Effects

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

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## 16. PREPARATION INFORMATION

**Prepared by:** Technical Services Department, Ostrem Chemical Co. Ltd., Ph: (780) 440-1911