

## Material Safety Data Sheet

May be used to comply with  
OSHA's Hazard Communication Standard  
29 CFR 1910.1200. Standard must be  
consulted for specific requirements.

## U.S. Department of Labor

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072



Forms Published by WindowChem (707)864-0846

## IDENTITY

**SOLUTION AR-1**

Note: Blank spaces are not permitted. If any item is not applicable, or no  
information is available, the space must be marked to indicate that.

## Section I

Manufacturer's Name  
**KOCOUR CO**

Emergency Telephone Number  
**1-800-424-9300**

Address (Number, Street, City, State, and ZIP Code)  
**4800 S. ST. LOUIS AVE.**

Telephone Number for Information  
**1-773-847-1111**

**CHICAGO, IL 60632**

Date Prepared  
**01/26/2007**

Signature of Preparer (optional)

## Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
AMMONIUM HYDROXIDE-	(AS ANHYDROUS AMMONIA)			< 8.0%
CAS# 1336-21-6	35ppm (27mg/m3) OSHA STEL			
	25ppm (18mg/m3) ACGIH TWA, 35ppm STEL			
	25ppm (18mg/m3) NIOSH RECOMMENDED TWA			
	35ppm (27mg/m3) NIOSH RECOMMENDED STEL			
AMMONIUM HYDROXIDE IS SUBJECT TO SARA SECTION 313 ANNUAL RELEASE REPORTING.				

AMMONIUM CHLORIDE-CAS#12125-02-9

< 10.0%

WATER- CAS# 7732-18-5

BALANCE

THE pH OF THE SOLUTION IS APPROXIMATELY 14.0.

## Section III - Physical/Chemical Characteristics

Boiling Point	97 DEG F	Specific Gravity (H2O = 1)	>1.00
Vapor Pressure (mm Hg)	115mgHg	Melting Point	N/A
Vapor Density (AIR = 1)	1.2	Evaporation rate (Butyl Acetate = 1)	N/A

Solubility in Water

COMPLETE

Appearance and Odo

COLORLESS SOLUTION WITH A DISTINCT AMMONIA ODOR.

## Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
NON FLAMMABLE LIQUID.		N/A	N/A

Extinguishing Media

USE SUITABLE MEANS FOR SURROUNDING FIRE.

Special Firefighting Procedure:

WEAR PROPER PERSONAL PROTECTION AND SELF CONTAINED BREATHING

APPARATUS FOR SURROUNDING FIRE.

Unusual Fire and Explosion Hazard:

NO APPLICABLE INFORMATION FOUND.

**Section V - Reactivity Data**

Stability	Unstable		Conditions to Avoid NO APPLICABLE INFORMATION FOUND.
	Stable	XX	

## Incompatibility (Materials to Avoid)

ACID SOLUTIONS, SILVER COMPOUNDS AND IODINE.

## Hazardous Decomposition or Byproducts

SPONTANEOUS RELEASE OF AMMONIA FUMES INTO THE AIR.

Hazardous Polymerization	May Occur		Conditions to Avoid NO APPLICABLE INFORMATION FOUND.
	Will Not Occur	XX	

**Section VI - Health Hazard Data**

Route(s) of Entry:	Inhalation? YES	Skin? YES	Ingestion? YES
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## Health Hazards (Acute and Chronic)

IRRITATING AND CORROSIVE TO ALL BODY TISSUE. INGESTION IS CORROSIVE TO THE

DIGESTIVE TRACT. EYE CONTACT CAN CAUSE SEVERE , PERMANENT DAMAGE.

Carcinogenicity	NTP? NON CARCINOGENIC	IARC Monographs?	OSHA Regulated?
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## Signs and Symptoms of Exposure

RED OR INFLAMED SKIN, HEADACHES, COUGHING , IRRITATION TO THE MUCOUS MEMBRANES AND/OI

UPPER RESPIRATORY TRACT. PROLONGED CONTACT CAN CAUSE EDEMA.

## Medical Conditions

Generally Aggravated by Exposure UPPER RESPIRATORY TRACT, MUCOUS MEMBRANES,

OPEN CUTS OR SKIN ABRASIONS.

## Emergency and First Aid Procedure

(INHALATION) REMOVE TO FRESH AIR (SKIN &amp; EYES) FLUSH WITH WATER 15 MINS; INCLUDING UNDEI

EYELIDS (INGESTION) GIVE WATER TO DILUTE &amp; SEEK IMMEDIATE MEDICAL ATTENTION.

**Section VII - Precautions for Safe Handling and Use**

## Steps to be Taken in Case Material is Released or Spill

PROVIDE PROPER VENTILATION. CONTAIN SPILL AND ABSORB WITH AN INERT MATERIAL (ie; SAND),

AND HOLD FOR PROPER DISPOSAL.

## Waste Disposal Method

ACCORDING TO FEDERAL, STATE AND LOCAL REGULATIONS.

## Precautions to be Taken in Handling and Storage

DO NOT STORE IN DIRECT SUNLIGHT. KEEP AT ROOM TEMPERATURE WITH CAI

TIGHTLY CLOSED.

## Other Precautions

STORE AWAY FROM ACID SOLUTIONS.

**Section VIII - Control Measures**

## Respiratory Protection (Specify Type)

ADEQUATE TO REDUCE EXPOSURE TO BELOW LIMITS LISTED LISTED IN SECTION II.

Ventilator	Local Exhaust ADEQUATE VENTILATION	Special NIOSH APPROVED RESPIRATOR
	Mechanical (General) FUME HOOD	Other NO APPLICABLE INFORMATION FOUND.
Protective Gloves:		EYE PROTECTION

ADEQUATE TO PROTECT THE SKIN.

SAFETY GOGGLES

## Other Protective Clothing or Equipment

LAB COAT OR APRON TO ADEQUATELY PROTECT THE CLOTHING.

## Work/Hygenic Practices

WASH WITH SOAP &amp; WATER AFTER USE. FOLLOW ESTABLISHED SAFETY POLICIES.