MATERIAL SAFETY DATA SHEET

EMTEC
EDUCATIONAL
CORPORATION

8944 Beckett Rd.
West Chester, OH 45069
(513) 860-4949
Fax (513) 682-8181

MSDS No. SS 441
Effective Date March 21, 1997

SECTION I NAME

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC
800-424-9300
Day 716-226-6177

duct	SODIUM CHLORIDE Anti A,B,
nical nyms	Sodium Chloride, Aqueous Solution
mula	Mixture. See Section II.
l Size	up to 4 LL
.S. No.	Mixture. See Section II.

Health	0
Fire	0
Reactivity	0

NFPA HAZARD RATING — HMIS *

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

SECTION II INGREDIENTS OF MIXTURES

ncipal Component(s)	%	TLV Units
Sodium Chloride: (CAS No. 7647-14-5)	5.8%	None established.
Water: (CAS No. 7732-18-5)	94.2%	None established.
LOW HAZARD IN NORMAL LABORATORY HANDLING. NON-TOXIC.		

SECTION III PHYSICAL DATA

lting Point (°F)	Freezes approx. 0°C (32°F)	Specific Gravity (H_2O = 1)	Approx. 1.0
ling Point (°F)	Approx. 100°C (212°F)	Percent Volatile by Volume (%)	94.2%
por Pressure (mm Hg)	14 (water).	Evaporation Rate (Water =1)	Slightly less than 1.
por Density (Air=1)	0.7 (water).		
ubility in Water	Complete.		
pearance & Odor	Clear, water white liquid, water solution; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

h Point thod Used)	Non-flammable.	Flammable Limits in Air % by Volume NA	Lower --------	Upper --------
nguisher ia	Use any media suitable for extinguishing supporting fire.			

SPECIAL FIREFIGHTING PROCEDURES

If involved in fire situation, wear a NIOSH/MSHA-approved self-contained breathing apparatus. Use flooding amounts of water in early stages of fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS

This solution due to its chemical composition and/or its concentration does not present any firefighting hazard. There are no unusual fire and explosion hazard associated with this solution.

shold Limited Value None established. LD_{50} rats-3750 mg/kg. No published indicating salt is a hazardous material to handle.

Effects of Overexposure EYES AND SKIN: Considered as mild irritant. Gross overexposure, over a long period of time, results in dehydration. INGESTION: Of large amounts (more than 0.1 pound) may cause vomiting. INHALATION: Dust leaves taste with mild irritation to mucous membrane in nose and throat.

Emergency and First Aid Procedures

Flush affected areas with water, provide drinking water.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid: Excessive temperature to cause evaporation.
	Stable	X	

Incompatibility (Materials to Avoid) Electrolysis can produce chlorine gas. None - provided the salt is dry. Concentrated acid such as sulfuric and nitric.

Hazardous Decomposition Products Electrolysis can produce chlorine gas.

Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Flush the aqueous solution down drain with plenty of water.

Waste Disposal Method Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Flush the aqueous solution down drain with plenty of water.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None needed in normal laboratory handling. If misty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved respirator.

Ventilation				
	Local Exhaust	Not required.	Special	No.
	Mechanical (General)	Not required.	Other	No.

Protective Gloves None required. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Lab coat, apron, eye wash station, proper gloves.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in a cool place. Wash thoroughly after handling.

Keep container tightly closed when not in use.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.

Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 1 | Date 3/21/97 | Approved Michael Raszeja | Chemical Safety Coordinator MR

MATERIAL SAFETY DATA SHEET

KEMTEC EDUCATIONAL CORP.
8944 BECKETT ROAD
WEST CHESTER, OH 45069
(513)860-4949 Fax:(513) 682-8181

MSDS No. SS 250
Effective Date February 20, 1997

SECTION I NAME — 24 HOUR EMERGENCY ASSISTANCE

Product	SODIUM AZIDE Anti A,B,RH
Chemical Synonyms	Sodium Trinitride
Formula	NaN_3
Unit Size	up to 2.5 Kg.
C.A.S. No.	26628-22-8

CHEMTREC 800-424-9300
Day 716-228-6177

NFPA HAZARD RATING / HMIS *

Health	3
Fire	2
Reactivity	2

LEAST 0 SLIGHT 1 MODERATE 2 HIGH 3 EXTREME 4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Sodium Azide	100%	See Section V.
DANGER! POISON! ☠		
MAY BE FATAL IF SWALLOWED OR INHALED.		
KEEP FROM HEAT OR SHOCK.		

SECTION III PHYSICAL DATA

Melting Point (°F)	300°C (572°F) decomposes.	Specific Gravity (H_2O = 1)	1.846 @ 20°C
Boiling Point (°F)	Decomposes in vacuum.	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	2.2		
Solubility in Water	42% (Slowly hydrolyzes liberating highly toxic hydrazoic acid.)		
Appearance & Odor	White, colorless crystals or powder; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	NA (Combustible)	Flammable Limits in Air % by Volume	Lower	Upper
		Unknown		

Extinguisher Media: Carbon dioxide (CO_2); dry chemical (ABC); halon, water spray or standard foam.

SPECIAL FIREFIGHTING PROCEDURES

Move exposed containers from fire area if without risk. Keep up-wind. No unnecessary personnel. Identify and isolate hazard area. Wear self-contained breathing apparatus and full protective clothing. Contact with acid produces poisonous gas.

(1993 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.6, GUIDE PAGE NO. 56)

UNUSUAL FIRE AND EXPLOSION HAZARDS

May catch fire and burn violently. Sensitivity to explosion increases greatly with certain metallic contaminations. Products of combustion may lead to explosion. May undergo explosive decomposition at elevated temperatures, particularly on rapid heating.

D.O.T. SODIUM AZIDE, 6.1, UN 1687, PG II

SECTION V HEALTH HAZARD DATA — SS 250

Threshold Limited Value

TWA: Ceiling limits - 0.1 ppm; 0.3 mg/m³ (AIR) (ACGIH 1992-93).

Effects of Overexposure

DANGER! ☠ POISON ☠ MAY BE FATAL IF INHALED OR SWALLOWED. INHALATION: High dust exposure may produce severe headache, dizziness, blurred vision, lowered blood pressure, slow pulse and respiratory tract irritation. EYES: Contact causes irritation, corneal burns and possible injury to retina and optic nerve. SKIN: Prolonged contact with moist skin causes irritation, and dermatitis. INGESTION: May cause breathlessness, nausea, vomiting, headache and restlessness.

Emergency and First Aid Procedures

INHALATION: Remove to fresh air. If not breathing, give artificial respiratio NEVER by mouth to mouth method. Remove contaminated clothing. EYES Immediately flush eyes with plenty of water for 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention. SKIN: Flush with plenty of water. INGESTION: If victim is conscious, remove ingested poison immediately by gastric lavage or emesis using activated charcoal. Give oxygen if respiration is shallow or if anoxia is present. Get medical attention immediately. (Dreisbach, Handbook of Poisoning, 11th ed.) Gastric lavage should be performed by qualified medical personnel.

SECTION VI REACTIVITY DATA

Stability	Unstable	X	Conditions to Avoid	High temperatures, strong impact. May explode from friction, heat or contaminatio
	Stable			

Incompatibility (Materials to Avoid): Strong oxidizers, acids (liberates highly toxic hydrazoic acid), heavy metals (lead, copper, silver, mercury, etc.), water, carbon disulfide, bromine, nitric acid, (benzoy chloride + potassium hydroxide) to form explosive compounds.

Hazardous Decomposition Products: Thermal decomposition or burning may produce nitrogen and sodium.

Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Wearing suitable protective clothing, thoroughly sweep up material and place in fiber carton for disposal. Do not flush to sewer. Do not use sink for disposal.

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in an approved incinerator equipped with an afterburner and scrubber or contract with a licensed waste disposal service.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type): None needed in normal laboratory handling. If dusty conditions prevail, work in ventilati hood or wear a NIOSH-approved dust mask or respirator.

Ventilation				
Local Exhaust	Acceptable.	Special	No.	
Mechanical (General)	Preferred.	Other	No.	

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.

Other Protective Equipment: Goggles, smock, apron, proper gloves, eye wash station, fire extinguisher.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use.

Store in a cool, dry place away from acids or metal containers; store away from fire and fire hazards. Wash thoroughly after handling.

Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals.

Do not inhale hydrazoic acid vapors. Avoid prolonged or repeated contact with skin. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	Date	Approved	
No. 4	2/20/97	Michael Raszeja	Chemical Safety Coordinator MR