








# Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
  	<p>Highly toxic; do not ingest or inhale.  Environmental hazard.  This material is very toxic to aquatic organisms and may cause long term adverse effects to the aquatic environment.  <b>POSSIBLE CARCINOGEN. MINIMIZE EXPOSURE.</b>  <b>MUTAGEN. MINIMIZE EXPOSURE.</b>  May react violently and/or evolve heat upon exposure to heat, shock, and friction.  Explodes when heated.  Readily absorbed through skin.</p>	   

## Section I. Chemical Product and Company Identification

Chemical Name	<b>Sodium Azide</b>		
Catalog Number	S0489	Supplier	TCI America 9211 N. Harborage St. Portland OR 1-800-423-8616
Synonym	Not available.		
Chemical Formula	N <sub>3</sub> Na		
CAS Number	26628-22-8	In case of Emergency Call	<b>Chemtrec®</b> <b>(800) 424-9300 (U.S.)</b> <b>(703) 527-3887 (International)</b>

## Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Sodium Azide	26628-22-8	Min. 98.0 (T)	This chemical is classified as a possible carcinogen. There is no acceptable exposure limit for a carcinogen. This compound is classified as a mutagen. There is no acceptable exposure limit for a mutagen.	Rat LD <sub>50</sub> (oral) 27 mg/kg Rabbit LD <sub>50</sub> (dermal) 20 mg/kg Rat LC <sub>50</sub> (inhalation) 37 mg/kg Woman LD <sub>50</sub> (oral) 786 mg/kg Man LD <sub>50</sub> (oral) 29 mg/kg

## Section III. Hazards Identification

Acute Health Effects	Highly toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Readily absorbed through skin. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.
Chronic Health Effects	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Tumorigenic Effects. Rat TD Oral 5460 mg/kg/78 weeks continuous TOXIC Effects: Tumorigenic - Equivocal tumorigenic agent by RTECS criteria Endocrine - Tumors Skin and Appendages - Tumors Rat TDLo Oral 2730 mg/kg/78 weeks continuous TOXIC Effects: Tumorigenic - Equivocal tumorigenic agent by RTECS criteria Endocrine - Tumors Skin and Appendages - Tumors <b>DEVELOPMENTAL TOXICITY</b> : Not available.

## Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation	If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.
Ingestion	INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.


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Emergency phone number (800) 424-9300

<b>Section V. Fire and Explosion Data</b>			
Flammability	May be combustible at high temperature.	Auto-Ignition	Not available.
Flash Points	Not available.	Flammable Limits	Not available.
Combustion Products	These products include nitrogen oxides (NO <sub>x</sub> ), metallic oxides.		
Fire Hazards	Not available.		
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. Consult with local fire authorities before attempting large scale fire-fighting operations.		

<b>Section VI. Accidental Release Measures</b>	
Spill Cleanup Instructions	Highly toxic material. Environmentally hazardous material. Mutagenic material. Possibly carcinogenic material. Material is readily absorbed through skin. Explodes when heated. Stop leak if without risk. DO NOT get water inside container. DO NOT touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal.

<b>Section VII. Handling and Storage</b>	
Handling and Storage Information	HIGHLY TOXIC. ENVIRONMENTAL HAZARD. MUTAGENIC. POSSIBLE CARCINOGEN. READILY ABSORBED THROUGH SKIN. EXPLODES WHEN HEATED. Keep locked up. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. DO NOT ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Always store away from incompatible compounds such as oxidizing agents, metals, acids.

<b>Section VIII. Exposure Controls/Personal Protection</b>	
Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Boots. Gloves. A MSHA/NIOSH approved respirator must be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. 
Exposure Limits	This chemical is classified as a possible carcinogen. There is no acceptable exposure limit for a carcinogen. This compound is classified as a mutagen. There is no acceptable exposure limit for a mutagen.

<b>Section IX. Physical and Chemical Properties</b>			
Physical state @ 20°C	Solid. (White Crystal)	Solubility	Soluble in water, ammonia. Slightly soluble in ethanol. Insoluble in ether.
Specific Gravity	1.85 (water=1)		
Molecular Weight	65.01	Partition Coefficient	Log P <sub>ow</sub> : <0.3
Boiling Point	Not available.	Vapor Pressure	1 Pa (@ 20°C)
Melting Point	275 °C (527 °F) (dec.)	Vapor Density	1.85 (Air = 1)
Refractive Index	Not available.	Volatility	Not available.
Critical Temperature	Not available.	Odor	Odorless.
Viscosity	Not available.	Taste	Not available.

<b>Section X. Stability and Reactivity Data</b>	
Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Avoid excessive heat and light.
Incompatibilities	Reactive with oxidizing agents, metals, acids, halogenated solvents, acid chloride.

**Section XI. Toxicological Information**

RTECS Number	JY8050000
Routes of Exposure	Eye Contact. Ingestion. Inhalation.
Toxicity Data	Rat LD <sub>50</sub> (oral) 27 mg/kg Rabbit LD <sub>50</sub> (dermal) 20 mg/kg Rat LC <sub>50</sub> (inhalation) 37 mg/kg Woman LD <sub>50</sub> (oral) 786 mg/kg Man LD <sub>50</sub> (oral) 29 mg/kg
Chronic Toxic Effects	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Tumorigenic Effects. Rat TD Oral 5460 mg/kg/78 weeks continuous TOXIC Effects: Tumorigenic - Equivocal tumorigenic agent by RTECS criteria Endocrine - Tumors Skin and Appendages - Tumors Rat TDLo Oral 2730 mg/kg/78 weeks continuous TOXIC Effects: Tumorigenic - Equivocal tumorigenic agent by RTECS criteria Endocrine - Tumors Skin and Appendages - Tumors <b>DEVELOPMENTAL TOXICITY</b> : Not available.
Acute Toxic Effects	Highly toxic if ingested or inhaled. Avoid prolonged contact with this material. Overexposure may result in serious illness or death. Readily absorbed through skin. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.


**Section XII. Ecological Information**

Ecotoxicity	Not available.
Environmental Fate	Aquatic Fate: Photolysis of sodium azide may result in metal nitrides initially, with the eventual formation of the free metal and nitrogen gas.

**Section XIII. Disposal Considerations**

Waste Disposal	Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.
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**Section XIV. Transport Information**

DOT Classification	DOT Class 6.1: Toxic material.
PIN Number	UN1687
Proper Shipping Name	Sodium azide
Packing Group (PG)	II
DOT Pictograms	

**Section XV. Other Regulatory Information and Pictograms**

TSCA Chemical Inventory (EPA)	This compound is <b>ON</b> the EPA Toxic Substances Control Act (TSCA) inventory list.
WHMIS Classification (Canada)	CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). On DSL
EINECS Number (EEC)	247-852-1
EEC Risk Statements	R26/27/28- Very toxic by inhalation, in contact with skin and if swallowed. R45- May cause cancer. R46- May cause heritable genetic damage. R47- May cause birth defects. R50- Very toxic to aquatic organisms. R53- May cause long-term adverse effects in the aquatic environment.
Japanese Regulatory Data	ENCS No. 1-482

**Section XVI. Other Information****Version 1.0****Validated on 5/1/2007.****Printed 5/1/2007.****Notice to Reader**

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.

*Printed 5/1/2007.*