



LTS RESEARCH LABORATORIES, INC.
MATERIAL SAFETY DATA SHEET
ZINC ARSENIDE

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: ZINC ARSENIDE
CHEMICAL FORMULA: Zn_3As_2

MANUFACTURER/SUPPLIER: LTS RESEARCH LABORATORIES, INC.
COMPANY'S STREET: 37 RAMLAND ROAD
COMPANY'S CITY: OANGEBURG
COMPANY'S STATE: NEW YORK
COMPANY'S ZIP CODE: 10962

EMERGENCY CHEMTREC #: 800-262-8200
COMPANY'S EMERGENCY TEL. #: 800-424-9300 (LOCAL)
703-527-3887 (INTERNATIONAL)
COMPANY'S TEL #: 845-494-2940

RECOMMENDED USE: SCIENTIFIC RESEARCH AND DEVELOPMENT

2. HAZARDS IDENTIFICATION

SIGNAL WORD: DANGER



HAZARD SYMBOLS: TOXIC IF SWALLOWED OR INHALED
DANGEROUS TO ENVIRONMENT

HMIS HEALTH RATINGS (0-4):

HEALTH: 3
FLAMMABILITY: 0
REACTIVITY: 1

3. COMPOSITION

CHEMICAL FAMILY: CERAMIC
ADDITIONAL NAMES: N/A
ZINC ARSENIDE (Zn_3As_2):
PERCENTAGE: 100 wt%
CAS #: 12006-40-5

4. FIRST AID PROCEDURES

IMPORTANT SYMPTOMS: N/A
SPECIAL TREATMENT: N/A
GENERAL TREATMENT: IMMEDIATELY REMOVE SOILED CLOTHING. SEEK MEDICAL ATTENTION IF EXPOSED.

INHALATION: REMOVE VICTIM TO FRESH AIR GIVE OXYGEN IF BREATHING IS DIFFICULT. PROVIDE ARTIFICIAL RESPIRATION IF BREATHING IS IRREGULAR.

INGESTION: IMMEDIATELY CALL FOR MEDICAL HELP. DO NOT INDUCE VOMITING.

SKIN: WASH AFFECTED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING.
EYES: FLUSH EYES WITH WATER, LIFTING UPPER AND LOWER EYELIDS, FOR 20 MINUTES.

5. FIRE AND EXPLOSION HAZARDS DATA

FLAMMABILITY: NON-FLAMMABLE
FLASH POINT: N/A
AUTOIGNITION TEMPERATURE: N/A
EXTINGUISHING MEDIA: USE SUITABLE EXTINGUISHING AGENT FOR SURROUNDING MATERIAL AND TYPE OF FIRE.
SPEC. FIRE FIGHTING PROCEDURE: USE FULL-FACE, SELF-CONTAINED BREATHING APPARATUS WITH FULL PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

6. ACCIDENTAL RELEASE MEASURES

IF MATERIAL IS RELEASED/ SPILLED: WEAR APPROPRIATE RESPIRATORY AND PROTECTIVE EQUIPMENT SPECIFIED IN SPECIAL PROTECTION INFORMATION. ISOLATE SPILL AREA AND PROVIDE VENTILATION. VACUUM UP SPILL USING A HIGH EFFICIENCY PARTICULATE ABSOLUTE (HEPA) AIR FILTER AND PLACE IN A CLOSED CONTAINER FOR DISPOSAL. TAKE CARE NOT TO RAISE DUST.
ENVIRONMENTAL PRECAUTIONS: ISOLATE RUNOFF TO PREVENT ENVIRONMENTAL POLLUTION.

7. HANDLING AND STORAGE

HANDLING CONDITIONS: WASH THOROUGHLY AFTER HANDLING.
HMIS PROTECTIVE EQUIPMENT: GLASSES, GLOVES, APRON, DUST RESPIRATOR
STORAGE CONDITIONS: STORE IN A COOL DRY PLACE IN A TIGHTLY SEALED CONTAINER.
WORK/HYGIENIC MAINTENANCE: DO NOT USE TOBACCO OR FOOD IN WORK AREA. WASH THOROUGHLY BEFORE EATING AND SMOKING. DO NOT BLOW DUST OFF CLOTHING OR SKIN WITH COMPRESSED AIR.
VENTILATION: PROVIDE SUFFICIENT VENTILATION TO MAINTAIN CONCENTRATION AT OR BELOW TLV.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OSHA PEL: 0.01 mg/m³ AS ARSENIC
ACGIH TLV: 0.01 mg/m³ AS ARSENIC
SPECIAL EQUIPMENT: NONE
RESPIRATORY PROTECTION: NIOSH APPROVED DUST/MIST RESPIRATOR
PROTECTIVE GLOVES: RUBBER GLOVES
EYE PROTECTION: SAFETY GLASSES
BODY PROTECTION: PROTECTIVE WORK CLOTHING. WEAR CLOSE-TOED SHOES AND LONG SLEEVES/PANTS.
OTHER: N/A

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

COLOR: METALLIC GREY
FORM: POWDER, PIECES, PELLETS, GRANULES, SPUTTERING TARGET
ODOR: ODORLESS
WATER SOLUBILITY: INSOLUBLE
BOILING POINT: N/A

MELTING POINT: 1015 °C
DENSITY: 5.528 g/cc
MOLECULAR WEIGHT: 345.95 g/mol

10. REACTIVITY

STABILITY: STABLE
INCOMPATIBILITY: OXIDIZING AGENTS, HALOGENS, HALOCARBONS
HAZ. DECOMPOSITION PRODUCTS: TOXIC METAL OXIDE FUME
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS:

EYE: IRRITANT
SKIN: IRRITANT
INGESTION: FATAL IF SWALLOWED
INHALATION: FATAL IF INHALED

ACUTE: ACUTE ARSENIC POISONING FROM INGESTION RESULTS IN MARKED IRRITATION OF THE STOMACH AND INTESTINES WITH NAUSEA, VOMITING AND DIARRHEA. IN SEVERE CASES, THE VOMITUS AND STOOLS ARE BLOODY AND THE PATIENT GOES INTO COLLAPSE AND SHOCK WITH WEAK, RAPID PULSE, COLD SWEATS, COMA AND DEATH.

CHRONIC: CHRONIC ARSENIC POISONING MAY CAUSE DISTURBANCES OF THE DIGESTIVE SYSTEM SUCH AS LOSS OF APPETITE, CRAMPS, NAUSEA, CONSTIPATION OR DIARRHEA. ZINC FUMES MAY CAUSE METAL FUME FEVER. EFFECTS INCLUDE DRY THROAT, METALLIC TASTE, CHEST PAIN, DYSPNEA, RALES AND DRY COUGH. SEVERAL HOURS LATER, CHILLS MAY OCCUR WITH LASSITUDE, MALAISE, FATIGUE, HEADACHE, BACK PAIN, MUSCLE CRAMPS, BLURRED VISION, NAUSEA, FEVER, PERSPIRATION, VOMITING AND LEUKOCYTOSIS.

ROUTES OF ENTRY: INHALATION AND INGESTION.
TARGET ORGANS: N/A
SIGNS & SYMPTOMS OF EXPOSURE: N/A
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: PRE-EXISTING RESPIRATORY DISORDERS.

LD50: N/A
CARCINOGEN:
NTP: YES
IARC MONOGRAPHS: YES
OSHA REGULATED: YES

12. ECOLOGICAL INFORMATION

ECOLOGICAL EFFECTS: VERY TOXIC FOR AQUATIC ORGANISMS
DO NOT ALLOW MATERIAL TO REACH GROUNDWATER OR SEWAGE SYSTEM EVEN IN SMALL QUANTITIES
POISONOUS TO AQUATIC ORGANISMS
AVOID TRANSFER TO THE ENVIRONMENT

13. DISPOSAL CONSIDERATIONS

DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

14. TRANSPORTATION DATA



HAZARD CLASS:	6.1 TOXIC SUBSTANCES
PACKING GROUP:	II
UN NUMBER:	UN1557
UN PROPER SHIPPING NAME:	ARSENIC COMPOUNDS, SOLID, N.O.S. (ZINC ARSENIDE)
ROAD ADR/RID CLASS:	6.1 (T5)
AIR IATA CLASS:	6.1
MARITIME IMDG CLASS:	6.1

15. REGULATORY INFORMATION

SEC.302 (EHS):	YES
SEC.304 (RQ):	N/A
SEC.313 (SARA):	YES

16. OTHER INFORMATION

THIS SAFETY DATA SHEET SHOULD BE USED IN CONJUNCTION WITH TECHNICAL SHEETS. IT DOES NOT REPLACE THEM. THE INFORMATION GIVEN IS BASED ON OUR KNOWLEDGE OF THIS PRODUCT, AT THE TIME OF PUBLICATION. IT IS GIVEN IN GOOD FAITH. THE ATTENTION OF THE USER IS DRAWN TO THE POSSIBLE RISKS INCURRED BY USING THE PRODUCT FOR ANY OTHER PURPOSE OTHER THAN THAT FOR WHICH IT WAS INTENDED. THIS DOES NOT IN ANY WAY EXCUSE THE USER FROM KNOWING AND APPLYING ALL THE REGULATIONS GOVERNING HIS ACTIVITY. IT IS THE SOLE RESPONSIBILITY OF THE USER TO TAKE ALL PRECAUTIONS REQUIRED IN HANDLING THE PRODUCT. THE AIM OF THE MANDATORY REGULATIONS MENTIONED IS TO HELP THE USER TO FULFILL HIS OBLIGATIONS REGARDING THE USE OF HAZARDOUS PRODUCTS.

DATE MSDS PREPARED:	02/15/10
DATE LAST REVISED:	08/26/14