

# *Chem-Impex International Inc.*

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## SAFETY DATA SHEET

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### SECTION 1. CHEMICAL IDENTIFICATION

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CATALOG #: 34667

NAME: 2-(Methyldithio)-isobutyraldehyde

SYNONYMS:

24 HOUR EMERGENCY (800) 535-5053(USA)

TELEPHONE: 352-323-3500 (INTERNATIONAL)

TO REQUEST AN MSDS: (800) 869-9290

CUSTOMER SERVICE: (630) 766-2112

### SECTION 2. HAZARDS IDENTIFICATION

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#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

#### GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)

FLAMMABLE LIQUIDS (CATEGORY 4), H227

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

#### GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

SIGNAL WORD WARNING

#### HAZARD STATEMENT(S)

H227 COMBUSTIBLE LIQUID.

**PRECAUTIONARY STATEMENT(S)**

P210 KEEP AWAY FROM HEAT, HOT SURFACES, SPARKS, OPEN FLAMES AND OTHER IGNITION SOURCES. NO SMOKING.

P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION.

P370 + P378 IN CASE OF FIRE: USE APPROPRIATE MEDIA TO EXTINGUISH

P403 STORE IN A WELL-VENTILATED PLACE

P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.

**HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS** NONE

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

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MF:  $C_5H_{10}OS_2$

MW: 150.26

CAS-NO. 67952-60-7

PURITY:  $\geq 97\%$  (GC)

**HAZARDOUS COMPONENTS**

COMPONENT	CLASSIFICATION	CONCENTRATION
2-(Methyldithio)-isobutyraldehyde		
	-	-

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

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**SECTION 4. FIRST-AID MEASURES**

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**DESCRIPTION OF FIRST AID MEASURES**

GENERAL ADVICE CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE. MOVE OUT OF DANGEROUS AREA.

IF INHALED IF BREATHING IS DIFFICULT, REMOVE TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. FOR BREATHING DIFFICULTIES, OXYGEN

MAY BE NECESSARY. CALL A PHYSICIAN IF SYMPTOMS DEVELOP OR PERSIST.

IN CASE OF SKIN CONTACT TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS AND PERSISTS. WASH SKIN THOROUGHLY WITH SOAP AND WATER FOR SEVERAL MINUTES.

IN CASE OF EYE CONTACT REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS AND PERSISTS. PROMPTLY WASH EYES WITH PLENTY OF WATER WHILE LIFTING THE EYE LIDS.

IF SWALLOWED CALL A PHYSICIAN OR POISON CONTROL CENTER IMMEDIATELY. IF SWALLOWED, RINSE MOUTH WITH WATER (ONLY IF THE PERSON IS CONSCIOUS). DO NOT INDUCE VOMITING. IF VOMITING OCCURS, THE HEAD SHOULD BE KEPT LOW SO THAT STOMACH VOMIT DOESN'T ENTER THE LUNGS.

**MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED** DIRECT CONTACT WITH EYES MAY CAUSE TEMPORARY IRRITATION.

**INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED** NO DATA AVAILABLE

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## SECTION 5. FIRE AND EXPLOSION DATA

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### EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA SUITABLE EXTINGUISHING MEDIA WATER SPRAY, FOG, CO2, DRY CHEMICAL, OR ALCOHOL RESISTANT FOAM.

UNSUITABLE EXTINGUISHING MEDIA DO NOT USE A SOLID WATER STREAM AS IT MAY SCATTER AND SPREAD FIRE.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE FIRE MAY PRODUCE IRRITATING, CORROSIVE AND/OR TOXIC GASES.

ADVICE FOR FIREFIGHTERS WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY. MOVE CONTAINERS FROM FIRE AREA IF YOU CAN DO SO WITHOUT RISK. WATER RUNOFF CAN CAUSE

ENVIRONMENTAL DAMAGE. VENTILATE CLOSED SPACES BEFORE ENTERING THEM. KEEP RUN-OFF WATER OUT OF SEWERS AND WATER SOURCES. DIKE FOR WATER CONTROL.

FURTHER INFORMATION

USE WATER SPRAY TO COOL UNOPENED CONTAINERS. STATIC CHARGES GENERATED BY EMPTYING PACKAGE IN OR NEAR FLAMMABLE VAPOR MAY CAUSE FLASH FIRE.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

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PERSONAL PRECAUTIONS,  
PROTECTIVE EQUIPMENT  
AND EMERGENCY  
PROCEDURES

USE PERSONAL PROTECTIVE EQUIPMENT. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION. EVACUATE PERSONNEL TO SAFE AREAS. BEWARE OF VAPOURS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPOURS CAN ACCUMULATE IN LOW AREAS.

FOR PERSONAL PROTECTION SEE SECTION 8.

ENVIRONMENTAL  
PRECAUTIONS

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

METHODS AND  
MATERIALS FOR  
CONTAINMENT AND  
CLEANING UP

CONTAIN SPILLAGE, AND THEN COLLECT WITH AN ELECTRICALLY PROTECTED VACUUM CLEANER OR BY WET-BRUSHING AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS (SEE SECTION 13).

REFERENCE TO OTHER  
SECTIONS

FOR DISPOSAL SEE SECTION 13.

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## SECTION 7. HANDLING AND STORAGE

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PRECAUTIONS FOR SAFE  
HANDLING

AVOID CONTACT WITH SKIN AND EYES. AVOID INHALATION OF VAPOUR OR MIST. KEEP AWAY FROM SOURCES OF IGNITION NO SMOKING. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE.

FOR PRECAUTIONS SEE SECTION 2.2.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES	KEEP CONTAINER CLOSED. HANDLE CONTAINERS WITH CARE. OPEN SLOWLY IN ORDER TO CONTROL POSSIBLE PRESSURE RELEASE. STORE IN A COOL, WELL-VENTILATED AREA.  Store at RT
SPECIFIC END USE(S)	APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **CONTROL PARAMETERS**

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS	CONTAINS NO SUBSTANCES WITH OCCUPATIONAL EXPOSURE LIMIT VALUES.
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### **EXPOSURE CONTROLS**

APPROPRIATE ENGINEERING CONTROLS	USE EXPLOSION-PROOF VENTILATION EQUIPMENT TO STAY BELOW EXPOSURE LIMITS. ADEQUATE VENTILATION SHOULD BE PROVIDED SO THAT EXPOSURE LIMITS ARE NOT EXCEEDED.
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### **PERSONAL PROTECTIVE EQUIPMENT**

EYE/FACE PROTECTION	FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).
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SKIN PROTECTION	HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.
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BODY PROTECTION	COMPLETE SUIT PROTECTING AGAINST CHEMICALS, FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING. THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.
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RESPIRATORY PROTECTION	WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULL-FACE RESPIRATOR WITH MULTIPURPOSE COMBINATION (US) OR TYPE ABEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).
CONTROL OF ENVIRONMENTAL EXPOSURE	PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Pale yellow to yellow liquid
ODOUR	CHARACTERISTIC
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING POINT/FREEZING POINT	
BOILING POINT	41 - 43 °C
FLASH POINT	72 °C
EVAPOURATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	1.09 (Lit.)
WATER SOLUBILITY	INSOLUBLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	NO DATA AVAILABLE
AUTO-IGNITION TEMPERATURE	NO DATA AVAILABLE
DECOMPOSITION TEMPERATURE	NO DATA AVAILABLE
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NOT EXPLOSIVE
OXIDIZING PROPERTIES	NOT OXIDIZING

### OTHER SAFETY INFORMATION

SPECIFIC GRAVITY	1.1 AT 25 C
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**SECTION 10. STABILITY AND REACTIVITY**

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REACTIVITY	THE PRODUCT IS STABLE AND NON-REACTIVE UNDER NORMAL CONDITIONS OF USE, STORAGE AND TRANSPORT
CHEMICAL STABILITY	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
POSSIBILITY OF HAZARDOUS REACTIONS	NO DANGEROUS REACTION KNOWN UNDER CONDITIONS OF NORMAL USE.
CONDITIONS TO AVOID	AVOID HEAT, SPARKS, OPEN FLAMES AND OTHER IGNITION SOURCES. AVOID TEMPERATURES EXCEEDING THE FLASH POINT. CONTACT WITH INCOMPATIBLE MATERIALS.
INCOMPATIBLE MATERIALS	STRONG OXIDIZING AGENTS
HAZARDOUS DECOMPOSITION PRODUCTS	NO HAZARDOUS DECOMPOSITION PRODUCTS IF STORED AND HANDLED AS INDICATED.  IN THE EVENT OF FIRE: SEE SECTION 5

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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**INFORMATION ON TOXICOLOGICAL EFFECTS**

ACUTE TOXICITY	NO DATA AVAILABLE  INHALATION: NO DATA AVAILABLE  DERMAL: NO DATA AVAILABLE  NO DATA AVAILABLE
SKIN CORROSION/IRRITATION	PROLONGED SKIN CONTACT MAY CAUSE TEMPORARY IRRITATION. CAUSES MILD SKIN IRRITATION.
SERIOUS EYE DAMAGE/EYE IRRITATION	DIRECT CONTACT WITH EYES MAY CAUSE TEMPORARY IRRITATION. CAUSES MILD EYE IRRITATION.
RESPIRATORY OR SKIN SENSITISATION	NO DATA AVAILABLE
GERM CELL MUTAGENICITY	NO DATA AVAILABLE
CARCINOGENICITY	

IARC: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC.

ACGIH: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY ACGIH.

NTP: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED CARCINOGEN BY NTP.

OSHA: NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY OSHA.

REPRODUCTIVE TOXICITY NO DATA AVAILABLE

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE NO DATA AVAILABLE

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE NO DATA AVAILABLE

ASPIRATION HAZARD NO DATA AVAILABLE

ADDITIONAL INFORMATION DIRECT CONTACT WITH EYES MAY CAUSE TEMPORARY IRRITATION.

RTECS: NOT AVAILABLE

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

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## **SECTION 12. ECOLOGICAL INFORMATION**

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**TOXICITY** NO DATA AVAILABLE

**PERSISTENCE AND DEGRADABILITY** NO DATA AVAILABLE

**BIOACCUMULATIVE POTENTIAL** NO DATA AVAILABLE

**MOBILITY IN SOIL** NO DATA AVAILABLE



**RESULTS OF PBT AND  
VPVB ASSESSMENT**

PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL  
SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED

**OTHER ADVERSE  
EFFECTS**

NO DATA AVAILABLE

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS**

**PRODUCT** OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO  
A LICENSED DISPOSAL COMPANY. CONTACT A LICENSED  
PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE  
OF THIS MATERIAL.

**CONTAMINATED  
PACKAGING** DISPOSE OF AS UNUSED PRODUCT.

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**SECTION 14. TRANSPORT INFORMATION**

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**DOT (US)**

**PROPER SHIPPING NAME:** COMBUSTIBLE LIQUID, N.O.S. (METHYLDITHIO-2  
ISOBUTYRALDEHYDE)

**NA-NUMBER:** 1993

**CLASS:** NONE

**PACKING GROUP:** III

**REPORTABLE QUANTITY** 150

**(RQ):**

**MARINE POLLUTANT** NO

**IMDG** NOT DANGEROUS GOODS

**IATA** NOT DANGEROUS GOODS

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**SECTION 15. REGULATORY INFORMATION**

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**SARA 302 COMPONENTS** NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE  
REPORTING REQUIREMENTS OF SARA TITLE III, SECTION  
302.

**SARA 313 COMPONENTS** THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DE MINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

**SARA 311/312 HAZARDS** YES

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS**

	CAS #	REVISION DATE
2-(Methyldithio)-isobutyraldehyde	67952-60-7	

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

	CAS #	REVISION DATE
2-(Methyldithio)-isobutyraldehyde	67952-60-7	

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

	CAS #	REVISION DATE
2-(Methyldithio)-isobutyraldehyde	67952-60-7	

**CALIFORNIA PROP. 65 COMPONENTS** THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE HARM.

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**SECTION 16. OTHER INFORMATION**

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**FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.**  
H227 COMBUSTIBLE LIQUID.

**HMIS RATING**

HEALTH HAZARD: 1  
CHRONIC HEALTH HAZARD:  
FLAMMABILITY: 2  
PHYSICAL HAZARD 0

**NFPA RATING**

HEALTH HAZARD: 1  
FIRE HAZARD: 2  
REACTIVITY HAZARD: 0

**MSDS LEGEND**

MW: MOLECULAR WEIGHT  
MF: MOLECULAR FORMULA  
VOC: VOLATILE ORGANIC COMPOUNDS  
ACGIH: AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS  
CAS: CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER

OSHA: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  
PEL: PERMISSIBLE EXPOSURE LIMIT (OSHA)  
TLV: THRESHOLD LIMIT VALUE (ACGIH)

IMPORTANT:

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