# **Chem-Impex International Inc.**

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### SAFETY DATA SHEET

#### SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #:	37230
NAME:	Dimethyl(methylthio)sulfonium tetrafluoroborate
SYNONYMS:	DMTSF
24 HOUR EMERGENCY TELEPHONE:	(800) 535-5053(USA) 352-323-3500 (INTERNATIONAL)
TO REQUEST AN MSDS:	(800) 869-9290
CUSTOMER SERVICE:	(630) 766-2112

#### SECTION 2. HAZARDS IDENTIFICATION

#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS) SKIN CORROSION (CATEGORY 1B), H314 SERIOUS EYE DAMAGE (CATEGORY 1), H318

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

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

#### PICTOGRAM



SIGNAL WORD

HAZARD STATEMENT(S)		
CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.		
'EMENT(S)		
DO NOT BREATHE DUST OR MIST.		
WASH SKIN THOROUGHLY AFTER HANDLING.		
WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE		
PROTECTION/ FACE PROTECTION.		
IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE		
VOMITING.		
IF ON SKIN (OR HAIR): REMOVE/ TAKE OFF IMMEDIATELY		
ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/		
SHOWER.		
IF INHALED: REMOVE PERSON TO FRESH AIR AND KEEP		
COMFORTABLE FOR BREATHING. IMMEDIATELY CALL A		
POISON CENTER/DOCTOR.		
IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL		
MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND		
EASY TO DO. CONTINUE RINSING. IMMEDIATELY CALL A		
POISON CENTER/DOCTOR.		
WASH CONTAMINATED CLOTHING BEFORE REUSE.		
STORE LOCKED UP.		
DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED		
WASTE DISPOSAL PLANT.		
NONE		

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

$S_2 \cdot BF_4$

MW: 196.04

CAS-NO. 5799-67-7

PURITY:  $\geq 97\%$  (Assay by titration)

#### HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
Dimethyl(methylthio)sulfonium tetrafluoroborate		
	SKIN CORR. 1B; EYE DAM. 1;	<= 100 %
	H314, H318	

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

### SECTION 4. FIRST-AID MEASURES

#### **DESCRIPTION OF FIRST AID MEASURES**

GENERAL ADVICE	CONSULT A PHYSICIAN. SHOW THIS MATERIAL SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.HYDROFLUORIC (HF) ACID BURNS REQUIRE IMMEDIATE AND SPECIALIZED FIRST AID AND MEDICAL TREATMENT. SYMPTOMS MAY BE DELAYED UP TO 24 HOURS DEPENDING ON THE CONCENTRATION OF HF. AFTER DECONTAMINATION WITH WATER, FURTHER DAMAGE CAN OCCUR DUE TO PENETRATION/ABSORPTION OF THE FLUORIDE ION. TREATMENT SHOULD BE DIRECTED TOWARD BINDING THE FLUORIDE ION AS WELL AS THE EFFECTS OF EXPOSURE. SKIN EXPOSURES CAN BE TREATED WITH A 2.5% CALCIUM GLUCONATE GEL REPEATED UNTIL BURNING CEASES. MORE SERIOUS SKIN EXPOSURES MAY REQUIRE SUBCUTANEOUS CALCIUM GLUCONATE EXCEPT FOR DIGITAL AREAS UNLESS THE PHYSICIAN IS EXPERIENCED IN THIS TECHNIQUE, DUE TO THE POTENTIAL FOR TISSUE INJURY FROM INCREASED PRESSURE. ABSORPTION CAN READILY OCCUR THROUGH THE SUBUNGUAL AREAS AND SHOULD BE CONSIDERED WHEN UNDERGOING DECONTAMINATION. PREVENTION OF ABSORPTION OF THE FLUORIDE ION IN CASES OF INGESTION CAN BE OBTAINED BY GIVING MILK, CHEWABLE CALCIUM CARBONATE TABLETS OR MILK OF MAGNESIA TO CONSCIOUS VICTIMS. CONDITIONS SUCH AS HYPOCALCEMIA, HYPOMAGNESEMIA AND CARDIAC ARRHYTHMIAS SHOULD BE MONITORED FOR, SINCE THEY CAN OCCUR AFTER EXPOSURE.
IF INHALED	IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.
IN CASE OF SKIN CONTACT	TAKE OFF CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.FIRST TREATMENT WITH CALCIUM GLUCONATE PASTE.
IN CASE OF EYE CONTACT	RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.CONTINUE RINSING EYES DURING TRANSPORT TO HOSPITAL.

IF SWALLOWED	DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.
MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11
INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED	NO DATA AVAILABLE

## SECTION 5. FIRE AND EXPLOSION DATA

#### **EXTINGUISHING MEDIA**

SUITABLE EXTINGUISHING MEDIA	USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.
SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE	CARBON OXIDES, SULFUR OXIDES, HYDROGEN FLUORIDE, BORANE/BORON OXIDES
ADVICE FOR FIREFIGHTERS	WEAR SELF-CONTAINED BREATHING APPARATUS FOR FIREFIGHTING IF NECESSARY.
FURTHER INFORMATION	NO DATA AVAILABLE

## SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY	USE PERSONAL PROTECTIVE EQUIPMENT. AVOID DUST FORMATION. AVOID BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. EVACUATE PERSONNEL TO SAFE AREAS. AVOID BREATHING DUST.
PROCEDURES	FOR PERSONAL PROTECTION SEE SECTION 8.
ENVIRONMENTAL PRECAUTIONS	DO NOT LET PRODUCT ENTER DRAINS.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP	PICK UP AND ARRANGE DISPOSAL WITHOUT CREATING DUST. SWEEP UP AND SHOVEL. KEEP IN SUITABLE, CLOSED CONTAINERS FOR DISPOSAL.

#### SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING	AVOID FORMATION OF DUST AND AEROSOLS.FURTHER PROCESSING OF SOLID MATERIALS MAY RESULT IN THE FORMATION OF COMBUSTIBLE DUSTS. THE POTENTIAL FOR COMBUSTIBLE DUST FORMATION SHOULD BE TAKEN INTO CONSIDERATION BEFORE ADDITIONAL PROCESSING OCCURS. PROVIDE APPROPRIATE EXHAUST VENTILATION AT PLACES WHERE DUST IS FORMED. FOR PRECAUTIONS SEE SECTION 2.2.
CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES	KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. KEEP IN A DRY PLACE.
SPECIFIC END USE(S)	Store at -10 °C 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.

#### **EXPOSURE CONTROLS**

APPROPRIATE	HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL
ENGINEERING	HYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE
CONTROLS	BREAKS AND AT THE END OF WORKDAY.

#### PERSONAL PROTECTIVE EQUIPMENT

EYE/FACEFACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FORPROTECTIONEYE PROTECTION TESTED AND APPROVED UNDER<br/>APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH<br/>(US) OR EN 166(EU).

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. FULL CONTACT MATERIAL: NITRILE RUBBER MINIMUM LAYER THICKNESS: 0.11 MM BREAK THROUGH TIME: 480 MIN MATERIAL TESTED: DERMATRIL (KCL 740, SIZE M) SPLASH CONTACT MATERIAL: NITRILE RUBBER MINIMUM LAYER THICKNESS: 0.11 MM BREAK THROUGH TIME: 480 MIN MATERIAL TESTED: DERMATRIL (KCL 740, SIZE M) IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE CE APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.
BODY PROTECTION	COMPLETE SUIT PROTECTING AGAINST CHEMICALS, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.
<b>RESPIRATORY</b> <b>PROTECTION</b>	WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULLFACE PARTICLE RESPIRATOR TYPE N100 (US) OR TYPE P3 (EN 143) 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	DO NOT LET PRODUCT ENTER DRAINS.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	White to off-white crystalline powder
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING	89 - 92 °C
POINT/FREEZING POINT	
INITIAL BOILING POINT	
AND BOILING RANGE	
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID,	NO DATA AVAILABLE
GAS)	
UPPER/LOWER	NO DATA AVAILABLE
FLAMMABILITY OR	
EXPLOSIVE LIMITS	
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	
WATER SOLUBILITY	NO DATA AVAILABLE
PARTITION COEFFICIENT:	NO DATA AVAILABLE
N- OCTANOL/WATER	
AUTO-IGNITION	NO DATA AVAILABLE
TEMPERATURE	
DECOMPOSITION	NO DATA AVAILABLE
TEMPERATURE	
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	NO DATA AVAILABLE

**OTHER SAFETY INFORMATION** NO DATA AVAILABLE

#### SECTION 10. STABILITY AND REACTIVITY

REACTIVITY	NO DATA AVAILABLE
CHEMICAL STABILITY	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
POSSIBILITY OF HAZARDOUS REACTIONS	NO DATA AVAILABLE
CONDITIONS TO AVOID	NO DATA AVAILABLE
INCOMPATIBLE MATERIALS	STRONG OXIDIZING AGENTS, STRONG BASES

HAZARDOUS DECOMPOSITION PRODUCTS HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS. - CARBON OXIDES, SULFUR OXIDES, HYDROGEN FLUORIDE, BORANE/BORON OXIDES OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE IN THE EVENT OF FIRE: SEE SECTION 5

### SECTION 11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS	
ACUTE TOXICITY	NO DATA AVAILABLE
	INHALATION: NO DATA AVAILABLE
	DERMAL: NO DATA AVAILABLE
	NO DATA AVAILABLE
SKIN CORROSION/IRRITATION	NO DATA AVAILABLE
SERIOUS EYE DAMAGE/EYE IRRITATION	NO DATA AVAILABLE
RESPIRATORY OR SKIN SENSITISATION	NO DATA AVAILABLE
GERM CELL MUTAGENICITY	NO DATA AVAILABLE
<b>CARCINOGENICITY</b> 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.
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 ON OSHA S LIST OF REGULATED CARCINOGENS.
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	RTECS: NOT AVAILABLE
	FLUORIDE ION CAN REDUCE SERUM CALCIUM LEVELS POSSIBLY CAUSING FATAL HYPOCALCEMIA.
	MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES, AND SKIN, SPASM, INFLAMMATION AND EDEMA OF THE LARYNX, SPASM, INFLAMMATION AND EDEMA OF THE BRONCHI, PNEUMONITIS, PULMONARY EDEMA, BURNING SENSATION, COUGH, WHEEZING, LARYNGITIS, SHORTNESS OF BREATH, HEADACHE, NAUSEA

#### SECTION 12. ECOLOGICAL INFORMATION

TOXICITY

NO DATA AVAILABLE

**PERSISTENCE AND**NO DATA AVAILABLE**DEGRADABILITY**NO DATA AVAILABLE

BIOACCUMULATIVE NO DATA AVAILABLE POTENTIAL

MOBILITY IN SOIL NO DATA AVAILABLE

RESULTS OF PBT AND VPVBPBT/VPVB ASSESSMENT NOT AVAILABLE ASASSESSMENTCHEMICAL SAFETY ASSESSMENT NOTREQUIRED/NOT CONDUCTED

**OTHER ADVERSE EFFECTS** NO DATA AVAILABLE

#### SECTION 13. DISPOSAL CONSIDERATIONS

#### 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. DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER.
CONTAMINATED PACKAGING	DISPOSE OF AS UNUSED PRODUCT.

### SECTION 14. TRANSPORT INFORMATION

<b>DOT (US)</b> PROPER SHIPPING NAME:	CORROSIVE SOLID, N.O.S.
	(Dimethyl(methylthio)sulfonium tetrafluoroborate)
UN NUMBER:	1759
CLASS:	8
PACKING GROUP:	II
REPORTABLE QUANTITY (RQ):	
POISON INHALATION	NO
HAZARD:	
IMDG	
PROPER SHIPPING NAME:	CORROSIVE SOLID, N.O.S.
	(Dimethyl(methylthio)sulfonium tetrafluoroborate)
UN NUMBER:	1759
CLASS:	8
PACKING GROUP:	II
EMS-NO:	F-A, S-B
IATA	
PROPER SHIPPING NAME:	CORROSIVE SOLID, N.O.S.
	(Dimethyl(methylthio)sulfonium tetrafluoroborate)
UN NUMBER:	1759
CLASS:	8
PACKING GROUP:	II

### SECTION 15. REGULATORY INFORMATION

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 HAZARDSACUTE HEALTH HAZARDMASSACHUSETTS RIGHT TONO COMPONENTS ARE SUBJECT TO THE

**KNOW COMPONENTS** MASSACHUSETTS RIGHT TO KNOW ACT.

#### PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS-NO. Dimethyl(methylthio)sulfonium 5799-67-7 tetrafluoroborate

#### NEW JERSEY RIGHT TO KNOW COMPONENTS

Dimethyl(methylthio)sulfonium 57<sup>th</sup> tetrafluoroborate

CAS-NO. 5799-67-7 REVISION DATE

**REVISION DATE** 

#### CALIFORNIA PROP. 65 COMPONENTS

THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH, OR ANY OTHER REPRODUCTIVE DEFECTS.

#### SECTION 16. OTHER INFORMATION

# FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.H314CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

MSDS LEGEND	
MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENENTAL 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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