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## Material Safety Data Sheet

Transportation Emergency: 1-800-451-8346

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### SECTION 1. ----- CHEMICAL IDENTIFICATION-----

CATALOG #: 9630-P-02  
NAME: 2-CHLORO-4-FLUOROPHENYLZINC IODIDE, 0.5M IN THF

### SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

COMPOSITION:

2-CHLORO-4-FLUOROPHENYLZINC IODIDE ~10-30%  
TETRAHYDROFURAN ~70-90%

CAS #: MIXTURE

2-CHLORO-4-FLUOROPHENYLZINC IODIDE [497923-83-8]  
TETRAHYDROFURAN [109-99-9]

MF: MIXTURE

2-CHLORO-4-FLUOROPHENYLZINC IODIDE  $C_6H_3ClFIZn = 321.85$   
TETRAHYDROFURAN  $C_4H_8O = 72.11$

### SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

CORROSIVE.  
CAUSES BURNS.  
REACTS VIOLENTLY WITH WATER.  
HARMFUL.  
HARMFUL IF SWALLOWED AND IF ABSORBED THROUGH SKIN.  
CAUSES SERIOUS EYE DAMAGE.  
MAY CAUSE DROWSINESS OR DIZZINESS.  
LIMITED EVIDENCE OF CARCINOGENIC EFFECT.  
TARGET ORGAN EFFECT  
CENTRAL NERVOUS SYSTEM, KIDNEY, LIVER.

### SECTION 4. ----- FIRST-AID MEASURES-----

ORAL EXPOSURE

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

INHALATION EXPOSURE

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

DERMAL EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.

EYE EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.

**SECTION 5. ----- FIRE FIGHTING MEASURES -----**

SUITABLE EXTINGUISHING MEDIA

USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

ADVICE FOR FIREFIGHTERS

WEAR SELF CONTAINED BREATHING APPARATUS FOR FIRE FIGHTING IF NECESSARY.

FURTHER INFORMATION

USE WATER SPRAY TO COOL UNOPENED CONTAINERS.

**SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----**

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

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

ENVIRONMENTAL PRECAUTIONS

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

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).

**SECTION 7. ----- HANDLING AND STORAGE-----**

PRECAUTIONS FOR SAFE HANDLING

AVOID CONTACT WITH SKIN AND EYES. AVOID INHALATION OF VAPOR OR MIST.

USE EXPLOSION-PROOF EQUIPMENT. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. TAKE MEASURES TO PREVENT THE BUILD UP OF ELECTROSTATIC CHARGE.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

KEEP CONTAINER TIGHTLY CLOSED IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE.

RECOMMENDED STORAGE TEMPERATURE: 2 - 8 °C

STORE UNDER INERT GAS. DRY RESIDUE IS EXPLOSIVE. TEST FOR PEROXIDE FORMATION

PERIODICALLY AND BEFORE DISTILLATION. DRY RESIDUE IS EXPLOSIVE. STORE UNDER INERT GAS.

TEST FOR PEROXIDE FORMATION PERIODICALLY AND BEFORE DISTILLATION.

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

ENGINEERING CONTROLS

MECHANICAL EXHAUST REQUIRED. SAFETY SHOWER AND EYE BATH.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN

(EU). WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE

APPROPRIATE USE A FULL-FACE RESPIRATOR WITH MULTI-PURPOSE

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.

HAND: COMPATIBLE CHEMICAL-RESISTANT GLOVES.

EYE: CHEMICAL SAFETY GOGGLES.

GENERAL HYGIENE MEASURES

WASH THOROUGHLY AFTER HANDLING.

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

<u>COMPONENTS</u>	<u>CAS-NO.</u>	<u>VALUE</u>	<u>CONTROL PARAMETERS</u>	<u>BASIS</u>
THF	109-99-9	TWA	50 ppm	USA. ACGIH TLV
		STEL	100 ppm	USA. ACGIH TLV

**SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----**

APPEARANCE AND ODOR

LIQUID

PHYSICAL PROPERTIES - MIXTURE

FLASH POINT: -17.2°C

**SECTION 10. -----STABILITY AND REACTIVITY -----**

CHEMICAL STABILITY

STABLE UNDER RECOMMENDED STORAGE CONDITIONS.

POSSIBILITY OF HAZARDOUS REACTIONS

VAPORS MAY FORM EXPLOSIVE MIXTURE WITH AIR.

CONDITIONS TO AVOID

HEAT, FLAMES AND SPARKS. EXTREMES OF TEMPERATURE AND DIRECT SUNLIGHT.

INCOMPATIBLE MATERIALS

OXIDIZING AGENTS, OXYGEN

**SECTION 11. ----- TOXICOLOGICAL INFORMATION -----**

POTENTIAL HEALTH EFFECTS

INHALATION

MAY BE HARMFUL IF INHALED. MATERIAL IS EXTREMELY DESTRUCTIVE TO THE TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. VAPORS MAY CAUSE DROWSINESS AND DIZZINESS.

INGESTION

HARMFUL IF SWALLOWED.

SKIN

HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN BURNS.

EYES

CAUSES EYE BURNS.

SIGNS AND SYMPTOMS OF EXPOSURE

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, AND NAUSEA.

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

DATA NOT YET AVAILABLE.

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

UN1993 - HC 3 - PG II

**SECTION 15. ----- REGULATORY INFORMATION -----**

EU ADDITIONAL CLASSIFICATION

RISK STATEMENTS: R11,R14,R21/22,R34,R40,R41,R67

SAFETY STATEMENTS: S6,S9,S16,S23,S24/25,S26,S36/37/39,S38,S45

US REGULATORY STATEMENTS

TSCA: NOT LISTED ON TSCA INVENTORY; FOR R&D USE ONLY

**SECTION 16. ----- OTHER INFORMATION-----**

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SYNQUEST LABS, INC. SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.