# Chem-Impex International Inc.

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# SAFETY DATA SHEET

# SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 36786

NAME: Dichloro(diisopropylamino)borane

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

## CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

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

PYROPHORIC LIQUIDS (CATEGORY 1), H250 SUBSTANCES AND MIXTURES, WHICH IN CONTACT WITH WATER, EMIT FLAMMABLE GASES (CATEGORY 2), H261 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 DANGER

## **HAZARD STATEMENT(S)**

H250 CATCHES FIRE SPONTANEOUSLY IF EXPOSED TO AIR. H261 IN CONTACT WITH WATER RELEASES FLAMMABLE GASES.

H314 CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.

# PRECAUTIONARY STATEMENT(S)

P210 KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. NO

SMOKING.

P222 DO NOT ALLOW CONTACT WITH AIR.

P223 KEEP AWAY FROM ANY POSSIBLE CONTACT WITH WATER,

BECAUSE OF VIOLENT REACTION AND POSSIBLE FLASH FIRE.

P231 + P232 HANDLE UNDER INERT GAS. PROTECT FROM MOISTURE.

P264 WASH SKIN THOROUGHLY AFTER HANDLING.

P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE

PROTECTION/ FACE PROTECTION.

P301 + P330 + P331 IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE VOMITING.
P302 + P334 IF ON SKIN: IMMERSE IN COOL WATER/ WRAP IN WET BANDAGES.
P303 + P361 + P353 IF ON SKIN (OR HAIR): REMOVE/ TAKE OFF IMMEDIATELY ALL

CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.

P304 + P340 IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN

A POSITION COMFORTABLE FOR BREATHING.

P305 + P351 + P338 IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL

MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO

DO. CONTINUE RINSING.

P310 IMMEDIATELY CALL A POISON CENTER/DOCTOR.

P321 SPECIFIC TREATMENT (SEE SUPPLEMENTAL FIRST AID

INSTRUCTIONS ON THIS LABEL).

P335 + P334 BRUSH OFF LOOSE PARTICLES FROM SKIN, IMMERSE IN COOL

WATER/ WRAP IN WET BANDAGES.

P363 WASH CONTAMINATED CLOTHING BEFORE REUSE.

P370 + P378 IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-

RESISTANT FOAM FOR EXTINCTION.

P402 + P404 STORE IN A DRY PLACE. STORE IN A CLOSED CONTAINER.

P405 STORE LOCKED UP.

P422 STORE CONTENTS UNDER INERT GAS.

P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE

DISPOSAL PLANT.

**HAZARDS NOT** REACTS VIOLENTLY WITH WATER.

OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS

# SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

MF:  $C_6H_{14}NBCl_2$ 

MW: 181.9

CAS-NO. 44873-49-6

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

# HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
Dichloro(diisopropylamino)borane		
	PYR. LIQ. 1; WATER-REACT. 2; SKIN CORR. 1B; EYE DAM. 1; H250, H261, H314, H318	<= 100 %

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 SAFETY DATA SHEET

TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF

DANGEROUS AREA.

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.

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

AND/OR IN SECTION 11

THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2)

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

#### NO DATA AVAILABLE

# **SECTION 5. FIRE AND EXPLOSION DATA**

**EXTINGUISHING MEDIA** 

**SUITABLE** DRY POWDER

**EXTINGUISHING MEDIA** 

SPECIAL HAZARDS CARBON OXIDES, NITROGEN OXIDES (NOX), HYDROGEN

CHLORIDE GAS, BORANE/BORON OXIDES ARISING FROM THE

SUBSTANCE OR MIXTURE

ADVICE FOR WEAR SELF-CONTAINED BREATHING APPARATUS FOR

**FIREFIGHTERS** FIREFIGHTING IF NECESSARY.

**FURTHER INFORMATION** NO DATA AVAILABLE

## SECTION 6. ACCIDENTAL RELEASE MEASURES

PERSONAL USE PERSONAL PROTECTIVE EQUIPMENT. AVOID

BREATHING VAPOURS, MIST OR GAS. ENSURE ADEQUATE PRECAUTIONS, PROTECTIVE EQUIPMENT VENTILATION. EVACUATE PERSONNEL TO SAFE AREAS.

AND EMERGENCY FOR PERSONAL PROTECTION SEE SECTION 8. **PROCEDURES** 

ENVIRONMENTAL PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO

**PRECAUTIONS** SO. DO NOT LET PRODUCT ENTER DRAINS.

CONTAIN SPILLAGE, AND THEN COLLECT WITH AN METHODS AND MATERIALS FOR ELECTRICALLY PROTECTED VACUUM CLEANER OR BY **CONTAINMENT AND** WETBRUSHING AND PLACE IN CONTAINER FOR DISPOSAL

**CLEANING UP** ACCORDING TO LOCAL REGULATIONS (SEE SECTION 13).

DO NOT FLUSH WITH WATER.

REFERENCE TO OTHER FOR DISPOSAL SEE SECTION 13.

**SECTIONS** 

# SECTION 7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE

HANDLING

AVOID INHALATION OF VAPOUR OR MIST.

KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.

FOR PRECAUTIONS SEE SECTION 2.2.

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.

NEVER ALLOW PRODUCT TO GET IN CONTACT WITH

WATER DURING STORAGE.

HANDLE AND STORE UNDER INERT GAS.

Store at 2 - 8 °C

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.

#### **EXPOSURE CONTROLS**

APPROPRIATE ENGINEERING CONTROLS HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE

BREAKS AND AT THE END OF WORKDAY.

# PERSONAL PROTECTIVE EQUIPMENT

**EYE/FACE PROTECTION** 

TIGHTLY FITTING SAFETY GOGGLES. FACESHIELD (8-INCH MINIMUM). USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (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. PROTECTIVE GLOVES

AGAINST THERMAL RISKS

**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.

**RESPIRATORY** WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING **PROTECTION** RESPIRATORS ARE APPROPRIATE USE A FULLFACE

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. 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.

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Colorless to yellow liquid
ODOUR NO DATA AVAILABLE
ODOUR THRESHOLD NO DATA AVAILABLE
PH NO DATA AVAILABLE

**MELTING** 

POINT/FREEZING POINT

BOILING POINT 61 °C/13 mmHg

FLASH POINT

EVAPOURATION 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 THE SUBSTANCE OR MIXTURE IS PYROPHORIC WITH THE

TEMPERATURE CATEGORY 1.

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** REACTS VIOLENTLY WITH WATER.

**HAZARDOUS REACTIONS** 

**CONDITIONS TO AVOID** EXPOSURE TO MOISTURE

INCOMPATIBLE STRONG OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION

**MATERIALS** 

**PRODUCTS** 

HAZARDOUS DECOMPOSITION PRODUCTS FORMED UNDER FIRE CONDITIONS. - CARBON OXIDES, NITROGEN OXIDES (NOX), HYDROGEN CHLORIDE GAS, 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** NO DATA AVAILABLE

**CORROSION/IRRITATION** 

SERIOUS EYE NO DATA AVAILABLE

DAMAGE/EYE IRRITATION

RESPIRATORY OR SKIN

NO DATA AVAILABLE

SENSITISATION

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

CARCINGCEN DVIARC

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 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 D

NO DATA AVAILABLE

ADDITIONAL INFORMATION

RTECS: NOT AVAILABLE

MATERIAL IS EXTREMELY DESTRUCTIVE TO TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT, EYES, AND SKIN. BURNING SENSATION, COUGH,

WHEEZING, LARYNGITIS, SHORTNESS OF BREATH,

HEADACHE, NAUSEA, VOMITING, SPASM, INFLAMMATION AND EDEMA OF THE LARYNX, SPASM, INFLAMMATION

AND EDEMA OF THE BRONCHI, PNEUMONITIS

# SECTION 12. ECOLOGICAL INFORMATION

**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

# SECTION 13. DISPOSAL CONSIDERATIONS

#### WASTE TREATMENT METHODS

**PRODUCT** BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN

AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. 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.

# SECTION 14. TRANSPORT INFORMATION

DOT (US)

PROPER SHIPPING NAME: ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC,

WATER-REACTIVE (Dichloro(diisopropylamino)borane)

UN NUMBER: 3394
CLASS: 4.2 (4.3)
PACKING GROUP: I
POISON INHALATION NO

HAZARD:

**IMDG** 

PROPER SHIPPING NAME: ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC,

WATER-REACTIVE (Dichloro(diisopropylamino)borane)

UN NUMBER: 3394 CLASS: 4.2 (4.3) PACKING GROUP: I

EMS-NO: F-G, S-M

**IATA** 

PROPER SHIPPING NAME: ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC,

WATER-REACTIVE (Dichloro(diisopropylamino)borane)

UN NUMBER: 3394 CLASS: 4.2 (4.3)

IATA PASSENGER: NOT PERMITTED FOR TRANSPORT IATA CARGO: NOT PERMITTED FOR TRANSPORT

## 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 HAZARDS REACTIVITY HAZARD, ACUTE HEALTH HAZARD

MASSACHUSETTS RIGHT TO KNOW COMPONENTS

NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

PENNSYLVANIA RIGHT TO KNOW COMPONENTS

CAS NO. REVISION DATE

Dichloro(diisopropylamino)borane 44873-49-6

NEW JERSEY RIGHT TO KNOW COMPONENTS

CAS NO. REVISION DATE

Dichloro(diisopropylamino)borane 44873-49-6

**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.

# SECTION 16. OTHER INFORMATION

# FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H250 CATCHES FIRE SPONTANEOUSLY IF EXPOSED TO AIR.
 H261 IN CONTACT WITH WATER RELEASES FLAMMABLE GASES.

H314 CAUSES 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)

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