

# ***Chem-Impex International Inc.***

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## **S A F E T Y   D A T A   S H E E T**

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### **SECTION 1.   CHEMICAL IDENTIFICATION**

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CATALOG #:	37138
NAME:	Dexrazoxane
SYNONYMS:	(S)-1,2-Bis(3,5-dioxo-1-piperazinyl)propane (S)-4,4'-(Propane-1,2-diyl)bis(piperazine-2,6-dione)
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**

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#### **CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

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

SKIN IRRITATION (CATEGORY 2), H315

EYE IRRITATION (CATEGORY 2A), H319

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3),

RESPIRATORY SYSTEM, H335

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

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS  
PICTOGRAM**



SIGNAL WORD                      WARNING

**HAZARD STATEMENT(S)**

H315                      CAUSES SKIN IRRITATION.  
H319                      CAUSES SERIOUS EYE IRRITATION.  
H335                      MAY CAUSE RESPIRATORY IRRITATION.

**PRECAUTIONARY STATEMENT(S)**

P261                      AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/  
   SPRAY.  
P264                      WASH SKIN THOROUGHLY AFTER HANDLING.  
P271                      USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.  
P280                      WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE  
   PROTECTION/ FACE PROTECTION.  
P302 + P352              IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER.  
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.  
P312                      CALL A POISON CENTER/DOCTOR IF YOU FEEL UNWELL.  
P321                      SPECIFIC TREATMENT (SEE SUPPLEMENTAL FIRST AID  
   INSTRUCTIONS ON THIS LABEL).  
P332 + P313              IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/  
   ATTENTION.  
P337 + P313              IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/  
   ATTENTION.  
P362                      TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE  
   REUSE.  
P403 + P233              STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER  
   TIGHTLY CLOSED.  
P405                      STORE LOCKED UP.  
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<sub>11</sub>H<sub>16</sub>N<sub>4</sub>O<sub>4</sub>

MW: 268.27  
CAS-NO. 24584-09-6  
PURITY:  $\geq$  98% (Assay by titration on dried basis)

#### HAZARDOUS COMPONENTS

COMPONENT	CLASSIFICATION	CONCENTRATION
Dexrazoxane	SKIN IRRIT. 2; EYE IRRIT. 2A; STOT SE 3; H315, H319, H335	$\leq$ 100 %

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

<b>GENERAL ADVICE</b>	CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.MOVE OUT OF DANGEROUS AREA.
<b>IF INHALED</b>	IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.
<b>IN CASE OF SKIN CONTACT</b>	WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.
<b>IN CASE OF EYE CONTACT</b>	RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.
<b>IF SWALLOWED</b>	NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN.
<b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>	THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11.
<b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b>	NO DATA AVAILABLE

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**SECTION 5. FIRE AND EXPLOSION DATA**

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**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, NITROGEN OXIDES (NOX)

**ADVICE FOR  
FIREFIGHTERS** WEAR SELF-CONTAINED BREATHING APPARATUS FOR  
FIREFIGHTING IF NECESSARY.

**FURTHER INFORMATION** NO DATA AVAILABLE

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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 DUST  
FORMATION. AVOID BREATHING VAPOURS, MIST OR  
GAS. ENSURE ADEQUATE VENTILATION. EVACUATE  
PERSONNEL TO SAFE AREAS. AVOID BREATHING DUST.  
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.

**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  
FORMATION OF DUST AND AEROSOLS.  
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.

Store at RT

**SPECIFIC END USE(S)** APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED.

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

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### **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** SAFETY GLASSES WITH SIDE-SHIELDS CONFORMING TO EN166 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.

**BODY PROTECTION** IMPERVIOUS CLOTHING, THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

**RESPIRATORY PROTECTION** FOR NUISANCE EXPOSURES USE TYPE P95 (US) OR TYPE P1 (EU EN 143) PARTICLE RESPIRATOR.FOR HIGHER LEVEL PROTECTION USE TYPE OV/AG/P99 (US) OR TYPE ABEK-P2 (EU EN 143) RESPIRATOR CARTRIDGES. 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.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	White to off-white powder
ODOUR	NO DATA AVAILABLE
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	NO DATA AVAILABLE
MELTING	193 - 197 °C
POINT/FREEZING POINT	
INITIAL BOILING POINT	
AND BOILING RANGE	
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	NO DATA AVAILABLE
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: N- OCTANOL/WATER	NO DATA AVAILABLE
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
<b>OTHER SAFETY</b> <b>INFORMATION</b>	NO DATA AVAILABLE

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**SECTION 10. STABILITY AND REACTIVITY**

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<b>REACTIVITY</b>	NO DATA AVAILABLE
<b>CHEMICAL STABILITY</b>	STABLE UNDER RECOMMENDED STORAGE CONDITIONS.
<b>POSSIBILITY OF</b> <b>HAZARDOUS</b> <b>REACTIONS</b>	NO DATA AVAILABLE
<b>CONDITIONS TO AVOID</b>	NO DATA AVAILABLE

**INCOMPATIBLE  
MATERIALS**

STRONG OXIDIZING AGENTS

**HAZARDOUS  
DECOMPOSITION  
PRODUCTS**

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

NO DATA AVAILABLE

**SERIOUS EYE  
DAMAGE/EYE IRRITATION**

NO DATA AVAILABLE

**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 ON  
OSHA S LIST OF REGULATED CARCINOGENS.

**REPRODUCTIVE TOXICITY**

NO DATA AVAILABLE

<b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>	INHALATION - MAY CAUSE RESPIRATORY IRRITATION.
<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>	NO DATA AVAILABLE
<b>ASPIRATION HAZARD</b>	NO DATA AVAILABLE
<b>ADDITIONAL INFORMATION</b>	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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<b>TOXICITY</b>	NO DATA AVAILABLE
<b>PERSISTENCE AND DEGRADABILITY</b>	NO DATA AVAILABLE
<b>BIOACCUMULATIVE POTENTIAL</b>	NO DATA AVAILABLE
<b>MOBILITY IN SOIL</b>	NO DATA AVAILABLE
<b>RESULTS OF PBT AND VPVB ASSESSMENT</b>	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED.
<b>OTHER ADVERSE EFFECTS</b>	NO DATA AVAILABLE

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS**

<b>PRODUCT</b>	OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL.
<b>CONTAMINATED PACKAGING</b>	DISPOSE OF AS UNUSED PRODUCT.



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**SECTION 14. TRANSPORT INFORMATION**

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**DOT (US)**

PROPER SHIPPING NAME: TOXIC SOLID, ORGANIC, N.O.S. (Dexrazoxane)  
UN NUMBER: 2811  
CLASS: 6.1  
PACKING GROUP: III  
REPORTABLE QUANTITY  
(RQ):  
POISON INHALATION HAZARD: NO

**IMDG**

PROPER SHIPPING NAME: TOXIC SOLID, ORGANIC, N.O.S. (Dexrazoxane)  
UN NUMBER: 2811  
CLASS: 6.1  
PACKING GROUP: III  
EMS-NO: F-A, S-A

**IATA**

PROPER SHIPPING NAME: TOXIC SOLID, ORGANIC, N.O.S. (Dexrazoxane)  
UN NUMBER: 2811  
CLASS: 6.1  
PACKING GROUP: III

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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 (DEMINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

**SARA 311/312 HAZARDS** 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
Dexrazoxane	24584-09-6	

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

	CAS-NO.	REVISION DATE
Dexrazoxane	24584-09-6	

**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.

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**SECTION 16. OTHER INFORMATION**

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

H315	CAUSES SKIN IRRITATION.
H319	CAUSES SERIOUS EYE IRRITATION.
H335	MAY CAUSE RESPIRATORY IRRITATION.

**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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