SANTA CRUZ BIOTECHNOLOGY, INC.

Iron-Dextran: sc-215191

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name: Iron-Dextran

Catalog Number: sc-215191

Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Ave.
Santa Cruz, California 95060
800.457.3801 or 831.457.3800

Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

Substance Name	*CAS #*	*SARA 313*
Iron-Dextran	9004-66-4	No

Ingredient Name	*CAS #*	*%*	*SARA 313*
Phenol.stab.	108-95-2	-	Yes

Synonyms: Ferric hydroxide dextran complex

Formula: FeH_2O_4S

Molecular Weight: 153.92

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Harmful.
Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact.
Calif. Prop. 65 carcinogen. Target organ(s): Central nervous system. Kidneys.

HMIS RATING

HEALTH: 3*
FLAMMABILITY: 0
REACTIVITY: 0

NFPA RATING

HEALTH: 3
FLAMMABILITY: 0
REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

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 breathing becomes difficult, call a physician.

DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal.
Ventilate area and wash spill site after material pickup is complete.

SECTION 7 - HANDLING AND STORAGE

HANDLING

User Exposure: Avoid contact with eyes, skin, and clothing. Do not breathe vapor. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed. Store at room temperature.

SECTION 8 - EXPOSURE CONTROLS / PPE

ENGINEERING CONTROLS

Mechanical exhaust required.

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.
Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

Form . . . . . Turbid Liquid
pH . . . . . 4.0 - 6.5
BP/BP Range . . . . . N/A
MP/MP Range . . . . . N/A
Freezing Point . . . . . N/A
Vapor Pressure . . . . . N/A
Vapor Density . . . . . N/A
Saturated Vapor Conc. . . . . N/A
Bulk Density . . . . . N/A
Odor Threshold . . . . . N/A
Volatile% . . . . . N/A
VOC Content . . . . . N/A

continued...

Water Content . . . . . .N/A
Solvent Content . . . . . .N/A
Evaporation Rate . . . . . .N/A
Viscosity . . . . . .N/A
Surface Tension . . . . . .N/A
Partition Coefficient . . . . . .N/A
Decomposition Temp. . . . . .N/A
Flash Point . . . . . .N/A
Explosion Limits . . . . . .N/A
Flammability . . . . . .N/A
Autoignition Temp . . . . . .N/A
Refractive Index . . . . . .N/A
Optical Rotation . . . . . .N/A
Miscellaneous Data . . . . . .N/A
Solubility . . . . . .N/A
N/A = not available

SECTION 10 - STABILITY AND REACTIVITY

STABILITY

Stable: Stable.
Materials to Avoid: Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Iron oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

SENSITIZATION

Respiratory: May cause allergic respiratory reaction.
Skin: May cause allergic skin reaction.

TARGET ORGAN(S) OR SYSTEM(S)

Central nervous system. Kidneys.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Intraperitoneal Intraperitoneal
Rat Rat
3 GM(FE)/KG 3 GM(FE)/KG
LD50 LD50

Oral Oral
Mouse Mouse
1 GM(FE)/KG 1 GM(FE)/KG
LD50 LD50

Intravenous Intravenous
Mouse Mouse
460 MG(FE)/KG 460 MG(FE)/KG
LD50 LD50

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Species: Woman Woman
Route of Application: Intramuscular Intramuscular
Dose: 20 MG/KG 20 MG/KG
Exposure Time: 3Y 3Y
Frequency: I I
Result: Tumorigenic:Neoplastic by RTECS criteria.
Tumorigenic :Tumors at site or application. Tumorigenic: Tumors at site or application. Tumorigenic: Neoplastic by RTECS criteria.

Species: Rat Rat
Route of Application: Subcutaneous Subcutaneous
Dose: 750 MG(FE)/KG 750 MG(FE)/KG
Exposure Time: 4W 4W
Frequency: I I
Result: Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic: Tumors at site or application. Tumorigenic: Tumors at site or application. Tumorigenic: Carcinogenic by RTECS criteria.

Species: Rat Rat
Route of Application: Intramuscular Intramuscular
Dose: 1150 MG/KG 1150 MG/KG
Exposure Time: 17W 17W
Frequency: I I
Result: Tumorigenic: Neoplastic by RTECS criteria. Tumorigenic: Tumors at site or application. Tumorigenic: Neoplastic by RTECS criteria. Tumorigenic: Tumors at site or application.

Species: Mouse Mouse
Route of Application: Subcutaneous Subcutaneous
Dose: 2300 MG/KG 2300 MG/KG
Exposure Time: I I
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Blood: Lymphomas including Hodgkin's disease. Tumorigenic: Tumors at site or application. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Blood: Lymphomas including Hodgkin's disease. Tumorigenic: Tumors at site or application.

Species: Mouse Mouse
Route of Application: Intramuscular Intramuscular
Dose: 2 GM(FE)/KG 2 GM(FE)/KG
Exposure Time: 9W 9W
Frequency: I I
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application. Tumorigenic: Tumors at site or application. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Species: Rabbit Rabbit
Route of Application: Intramuscular Intramuscular
Dose: 28 GM/KG 28 GM/KG
Exposure Time: 27W 27W
Frequency: I I
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application. Tumorigenic: Tumors at site or application. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Species: Hamster Hamster
Route of Application: Subcutaneous Subcutaneous
Dose: 40 GM/KG 40 GM/KG
Exposure Time: 10W 10W
Frequency: I I
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors.

continued...

Species: Mouse Mouse
Route of Application: Subcutaneous Subcutaneous
Dose: 1120 MG(FE)/KG 1120 MG(FE)/KG
Exposure Time: 28W 28W
Frequency: I I
Result: Tumorigenic: Tumors at site or application. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Route of Application: Intramuscular Intramuscular
Dose: 3760 MG(FE)/KG 3760 MG(FE)/KG
Exposure Time: 47W 47W
Frequency: I I
Result: Tumorigenic: Tumors at site or application. Tumorigenic: Neoplastic by RTECS criteria. Tumorigenic: Tumors at site or application. Tumorigenic: Neoplastic by RTECS criteria.

Species: Rat Rat
Route of Application: Subcutaneous Subcutaneous
Dose: 104 GM/KG 104 GM/KG
Exposure Time: 26W 26W
Frequency: I I
Result: Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Tumorigenic: Tumors at site or application. Tumorigenic: Tumors at site or application. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Species: Rat Rat
Route of Application: Subcutaneous Subcutaneous
Dose: 1500 MG(FE)/KG 1500 MG(FE)/KG
Exposure Time: 8W 8W
Frequency: I I
Result: Tumorigenic: Tumors at site or application. Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic: Tumors at site or application. Tumorigenic: Carcinogenic by RTECS criteria.

Species: Woman Woman
Route of Application: Intramuscular Intramuscular
Dose: 52 MG(FE)/KG 52 MG(FE)/KG
Exposure Time: 6W 6W
Frequency: I I
Result: Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic: Tumors at site or application. Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic: Tumors at site or application

Species: Rat Rat
Route of Application: Subcutaneous Subcutaneous
Dose: 2400 MG(FE)/KG 2400 MG(FE)/KG
Exposure Time: 24W 24W
Frequency: I I
Result: Tumorigenic:Carcinogenic by RTECS criteria.
Tumorigenic: Tumors at site or application. Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic: Tumors at site or application.

Species: Mouse Mouse
Route of Application: Subcutaneous Subcutaneous
Dose: 104 GM/KG 104 GM/KG
Exposure Time: 13W 13W
Frequency: I I
Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration: Bronchiogenic carcinoma. Tumorigenic: Tumors at site or application. Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration: Bronchiogenic carcinoma. Tumorigenic: Tumors at site or application.

IARC CARCINOGEN LIST
Rating: Group 2B

NTP CARCINOGEN LIST
Rating: Anticipated to be a carcinogen. Anticipated to be a carcinogen.

CHRONIC EXPOSURE - TERATOGEN
Species: Rabbit Rabbit
Dose: 650 MG 650 MG
Route of Application: Intramuscular Intramuscular
Exposure Time: (FE)/KG (6-18D PREG) (FE)/KG (6-18D PREG)
Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD
Species: Rat Rat
Dose: 2580 GM/KG 2580 GM/KG
Route of Application: Intravenous Intravenous
Exposure Time: (17-20D PREG) (17-20D PREG)
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Species: Rat Rat
Dose: 240 MG/KG 240 MG/KG
Route of Application: Intramuscular Intramuscular
Exposure Time: (6W PRE) (6W PRE)
Result: Effects on Newborn: Behavioral. Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Behavioral.

Species: Rat Rat
Dose: 52500 UG/KG 52500 UG/KG
Route of Application: Intrauterine Intrauterine
Exposure Time: (1D PRE) (1D PRE)
Result: Maternal Effects: Uterus, cervix, vagina. Maternal Effects: Uterus, cervix, vagina.

Species: Rat Rat
Dose: 5250 UG/KG 5250 UG/KG
Route of Application: Intrauterine Intrauterine
Exposure Time: (1D PRE) (1D PRE)
Result: Effects on Fertility: Female fertility index (e.g., # females pregnant per # sperm positive females; # females pregnant per # females mated). Maternal Effects: Uterus, cervix, vagina. Effects on Fertility: Female fertility index (e.g., # females pregnant per # sperm positive females; # females pregnant per # females mated). Maternal Effects: Uterus, cervix, vagina.

SECTION 12 - ECOLOGICAL INFORMATION
No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS
APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
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. Observe all federal, state, and local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION
DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

continued...

SECTION 15 - REGULATORY INFORMATION

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xn
Indication of Danger: Harmful.
R: 40-42/43
Risk Statements: Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact.
S: 23-26-36/37/39-45
Safety Statements: Do not breathe vapor. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Harmful.
Risk Statements: Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact.
Safety Statements: Do not breathe spray. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
US Statements: Calif. Prop. 65 carcinogen. Target organ(s): Central nervous system. Kidneys.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

UNITED STATES - STATE REGULATORY INFORMATION

CALIFORNIA PROP - 65
California Prop - 65: California Proposition 65: This product is or contains chemical(s) known to the state of California to cause cancer. California Proposition 65: This product is or contains chemical(s) known to the state of California to cause cancer. This product is or contains chemical(s) known to the state of California to cause cancer.

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

SECTION 16 - OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

2/14/2012