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 * M S D S *
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 * Canadian Centre for Occupational Health and Safety *
 * * * * * (February, 2002) *

*** IDENTIFICATION ***

MSDS RECORD NUMBER : 2340319
 PRODUCT NAME(S) : Gram Iodine 100X
 PRODUCT IDENTIFICATION : Article number: 212529, 4312529
 DATE OF MSDS : 2000-04-18
 CURRENCY NOTE : This MSDS was provided to CCOHS in electronic form on
 2000-07-10

*** MANUFACTURER INFORMATION ***

MANUFACTURER : BD Biosciences
 ADDRESS : 7 Loveton Circle
 Sparks Maryland
 U.S.A. 21152
 Telephone: 410-771-0100 800-638-8663
 EMERGENCY TELEPHONE NO. : 410-771-0100
 800-638-8663
 800-424-9300 (Chemtrec)

*** MATERIAL SAFETY DATA ***

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 06/15/2000

Reviewed on 04/18/2000

* 1 Identification of substance:

o Product details:

- o Trade name: Gram Iodine 100X
- o Article number: 212529, 4312529

o Manufacturer/Supplier:

BD Biosciences
 7 Loveton Circle
 Sparks, MD 21152
 Tel: (410)771-0100 or (800)638-8663

o Information department: Technical Services

o Emergency information:

For a chemical emergency, spill, fire, exposure, or accident call BD
 Biosciences at (410)771-0100 or (800)638-8663, or Chem Trec
 (800)424-9300

* 2 Composition/Data on components:

o Chemical characterization

o Description:

Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

7681-11-0 potassium iodide

53.0 %

7553-56-2 iodine

27.0 %

* * 3 Hazards identification

- o Hazard description: Xn Harmful
- o Information pertaining to particular dangers for man and environment

R 20/21 Harmful by inhalation and in contact with skin.

- o Classification system
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- o NFPA ratings (scale 0-4)
Health = 2
Fire = 0
Reactivity = 0

* 4 First aid measures

- o General information
Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.
- o After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek medical advice.
In case of unconsciousness place patient on side position for transportation.
- o After skin contact
Immediately wash with water and soap and rinse thoroughly.
- o After eye contact
Rinse opened eye for several minutes under running water. Then consult a doctor.
- o After swallowing
Immediately call a doctor.
Call a doctor immediately.
- o Information for doctor Show this label

* 5 Fire fighting measures

- o Suitable extinguishing agents
CO2, extinguishing powder or water spray. Fight larger fires with water or alcohol resistant foam.
- o Special hazards caused by the material, its products of combustion or
resulting gases:
In certain fire conditions, traces of other toxic gases cannot be excluded.
- o Protective equipment:
Wear self-contained respiratory protective device.
Wear fully protective suit.

* 6 Accidental release measures

- o Person-related safety precautions:
Wear protective equipment. Keep unprotected persons away.
- o Measures for environmental protection: Wipe up with damp sponge or mop.
- o Measures for cleaning/collecting:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
- o Additional information:
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

* 7 Handling and storage

- o Handling
 - o Information for safe handling:
 - Ensure good ventilation/exhaustion at the workplace.
 - o Information about protection against explosions and fires:
 - No special measures required.
- o Storage
 - o Requirements to be met by storerooms and receptacles: 15 - 30 C
 - o Information about storage in one common storage facility:
 - Store away from oxidizing agents.
 - Store away from reducing agents.
 - Do not store with ammonia and salts, aluminum, bromine trifluorides and trichlorides, chemically active metals, and carbides.
 - o Further information about storage conditions:
 - Store in cool, dry conditions in well sealed receptacles.
 - o Class according to regulation on flammable liquids: Void

* 8 Exposure controls and personal protection

- o Additional information about design of technical systems:
 - No further data; see item 7.

Components with limit values that require monitoring at the workplace:

7553-56-2 iodine

ACGIH TLV: Short-term value: C 0.1 ppm

NIOSH REL: Short-term value: C 1 mg/m., C 0.1 ppm

OSHA PEL: Short-term value: C 1 mg/m., C 0.1 ppm

- o Additional information:

The lists that were valid during the creation were used as basis.

- o Personal protective equipment
- o General protective and hygienic measures
 - The usual precautionary measures for handling chemicals should be followed.
- o Breathing equipment:
 - In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- o Protection of hands: Protective gloves.
- o Eye protection: Safety glasses
- o Body protection: Protective work clothing (lab coat).

* 9 Physical and chemical properties:

- o Form: Liquid
- o Color: Dark brown
- o Odor: Characteristic
- o

	Value/Range	Unit	Method
o Change in condition	Undetermined		
o Melting point/Melting range:	Undetermined		
o Boiling point/Boiling range:	184	. C	
o Flash point:	Not applicable		
o Auto igniting:	Product is not selfigniting.		
o Danger of explosion:	Product does not present an explosion hazard.		
o Vapor pressure:	at 20 . C		0.4 hPa

- o Density: Not determined
- o Solubility in / Miscibility with
o Water: Soluble
- o pH-value: at 25 . C 2.275 +/- 0.2

* 10 Stability and reactivity

- o Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
- o Materials to be avoided: Incompatible material: strong oxidizers.
- o Dangerous reactions No dangerous reactions known
- o Dangerous products of decomposition:
Iodine compounds
Sulfur oxides (SOx)
Carbon monoxide (CO) and carbon dioxide (CO2)
Nitrogen oxides (NOx)

* 11 Toxicological information

- o Acute toxicity:
LD/Lc50 values that are relevant for classification:

7681-11-0 potassium iodide
Oral: LD50: 1862 mg/kg (rat)
- o Primary irritant effect:
o on the skin: Irritant to skin and mucous membranes.
- o on the eye: Irritating effect.
- o Sensitization: No sensitizing effects known.
- o Subacute to chronic toxicity:
Target organs: lung, thyroid, bladder damage and central nervous system depression.
- o Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations.
Harmful

* 12 Ecological information:

- o Ecotoxicological effects:
- o Other information:
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- o General notes:
Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

* 13 Disposal considerations

- o Product:
- o Recommendation
Smaller quantities can be disposed of with solid waste.
Must adhere to state and federal regulations.
Disposal must be made according to the regulations found in 40 CFR 261.
This product is not considered a RCRA hazardous waste. Follow local and state regulations.
- o Uncleaned packagings:
- o Recommended cleansing agent: Water, if necessary with cleansing agents.

* 14 Transport information

- o DOT regulations:
- o Hazard class: -

- o Land transport ADR/RID (cross-border)
- o ADR/RID class: -

- o Maritime transport IMDG:
- o IMDG Class: -
- o Marine pollutant: No

- o Air transport ICAO-TI and IATA-DGR:
- o ICAO/IATA Class: -

* *15 Regulations

- o Product related hazard informations:
Observe the general safety regulations when handling chemicals
The product is not subject to identification regulations pertaining to regulations on hazardous materials.

- o Hazard symbols: Xn Harmful

- o Hazard-determining components of labelling: iodine

- o Risk phrases: 20/21 Harmful by inhalation and in contact with skin.

- o Safety phrases:
 - 9 Keep container in a well-ventilated place.
 - 23 Do not breathe gas/fumes/vapour/spray.
 - 36/37 Wear suitable protective clothing and gloves.
 - 60 This material and its container must be disposed of as hazardous waste.

- o National regulations
- o Additional classification according to Decree on Hazardous Materials:
CERCLA: This product contains iodine and has a Reportable Quantity (RQ)
of 100 lbs.
SARA 311/312: Not subject to reporting.
313: Maybe subject to reporting.
TSCA: This product is exempt under TSCA.

- o Water hazard class:
Water hazard class 1 (Self-assessment): slightly hazardous for water.

* 16 Other information:

To the best of our knowledge, the information contained herein is accurate. However, neither Becton Dickinson or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

- o Department issuing MSDS: Safety & Environment Department
- o Contact: Technical Service Representative