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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 : 2340316
 PRODUCT NAME(S) : Gram Safranin (Gram Stain Set)
 PRODUCT IDENTIFICATION : Article number: 212524, 4312524
 DATE OF MSDS : 2000-03-17
 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 06/28/2000

Reviewed on 03/17/2000

- * 1 Identification of substance:
 - o Product details:
 - o Trade name: Gram Safranin
(Gram Stain Set)
 - o Article number: 212524, 4312524
 - 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:

64-17-5 ethanol	19.0 %
67-56-1 methanol	1.0 %

* 3 Hazards identification

- o Hazard description:
 - F Highly flammable
 - Xn Harmful
- o Information pertaining to particular dangers for man and environment
 - R 10 Flammable.
 - R 20/22 Harmful by inhalation and if swallowed.
 - R 36/37/38 Irritating to eyes, respiratory system and skin.
 - R 45 Can cause cancer - Group III (hazardous)
 - R 61 May cause harm to the unborn child
 - R 40 Possible risks of irreversible effects.
- 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 = 3
 - Fire = 2
 - 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 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:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- 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.
- 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:

64-17-5 ethanol
ACGIH TLV: 1000 ppm
A4
NIOSH REL: 1900 mg/m., 1000 ppm
OSHA PEL: 1900 mg/m., 1000 ppm

67-56-1 methanol
ACGIH TLV: Short-term value: 250 ppm
Long-term value: 200 ppm
Skin; BEI
NIOSH REL: Short-term value: 325 mg/m., 250 ppm
Long-term value: 260 mg/m., 200 ppm
Skin
OSHA PEL: 260 mg/m., 200 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
Wash hands before breaks and at the end of work.
- 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: Red
- o Odor: Characteristic
- o

Value/Range	Unit	Method
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- o Change in condition
- o Melting point/Melting range: Undetermined

- o Boiling point/Boiling range: 79 . C
- o Flash point: 38.9 . C
- o Ignition temperature: 425.0 . C
- o Auto igniting: Product is not selfigniting.
- o Danger of explosion:
Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- o Explosion limits:
 - o Lower: 6.5 Vol %
 - o Upper: 22 Vol %
- o Vapor pressure: at 25 . C 59.0 hPa
- o Density: Not determined
- o Solubility in / Miscibility with
 - o Water: Soluble
- o Solvent content:
 - o Organic solvents: 20.0 %

* 10 Stability and reactivity

- o Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications.
- o Dangerous reactions No dangerous reactions known
- o Dangerous products of decomposition:
Carbon monoxide (CO) and carbon dioxide (CO2)
Nitrogen oxides (NOx)
Hydrogen chloride (HCl)

* 11 Toxicological information

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

67-56-1 methanol
Oral: LD50: 5628 mg/kg (rat)

64-17-5 ethanol
Oral: LD50: 7060 mg/kg (rat)
Inhalative: LC50/4 h: 20000 mg/l (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: eyes, kidneys, tumor formation, reproductive disorders
- o Additional toxicological information:
Irritant
Carcinogenic
Product is suspected to cause birth defects.
The product shows the following dangers according to internally approved calculation methods for preparations:

* 12 Ecological information:

- o Ecotoxic effects:
- o Other information:
The ecological effects have not been thoroughly investigated, but currently none have been identified.

- o General notes: Generally not hazardous for water.

* 13 Disposal considerations

- o Product:
- o Recommendation
 - Must not 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.
 - RCRA hazardous waste - RCRA # D001 (ignitable).
- o Uncleaned packagings:
- o Recommended cleansing agent: Water, if necessary with cleansing agents.

* 14 Transport information

- o DOT regulations:
- o Hazard class: 3
- o Identification number: UN1993
- o Packing group: III
- o Proper shipping name (technical name):
Flammable liquid, n.o.s. (ethanol, methanol)
- o Remarks: Limited quantity

- o Land transport ADR/RID (cross-border)
- o ADR/RID class: 3 Flammable liquids
- o Item: 31c
- o Danger code (Kemler): 30
- o UN-Number: 1993
- o Description of goods: 1993 Flammable liquid, n.o.s. (ethanol, methanol)

- o Maritime transport IMDG:
- o IMDG Class: 3.3
- o Page: 3345
- o UN Number: 1993
- o Packaging group: III
- o EMS Number: 3-07
- o MFAG: 310
- o Marine pollutant: No
- o Proper shipping name: Flammable liquid, n.o.s. (ethanol, methanol)

- o Air transport ICAO-TI and IATA-DGR:
- o ICAO/IATA Class: 3
- o UN/ID Number: 1993
- o Packaging group: III
- o Proper shipping name: Flammable liquid, n.o.s. (ethanol, methanol)
- o Remarks: Limited quantity

* 15 Regulations

- o Product related hazard informations:
The product has been classified and marked in accordance with regulations on hazardous materials.
- o Hazard symbols:
F Highly flammable Xn Harmful
- o Risk phrases:
10 Flammable.
20/22 Harmful by inhalation and if swallowed.
36/37/38 Irritating to eyes, respiratory system and skin.

- 45 Can cause cancer - Group III (hazardous)
- 61 May cause harm to the unborn child
- 40 Possible risks of irreversible effects.

- o Safety phrases:

- 7 Keep container tightly closed.
- 16 Keep away from sources of ignition - No smoking.
- 24/25 Avoid contact with skin and eyes.
- 23 Do not breathe gas/fumes/vapour/spray.
- 36 Wear suitable protective clothing.

- o National regulations

- o Additional classification according to Decree on Hazardous Materials:

CERCLA: This product contains methanol and has a Reporting Quantity (RQ) of 5,000 lbs.

SARA 311/312: Maybe subject to reporting.

313: Not subject to reporting.

TSCA: This product is exempt under TSCA.

CERCLA: This product contains ethanol and has a Reporting Quantity (RQ)

of 5,000 lbs.

SARA 311/312: Subject to reporting.

313: Not subject to reporting.

TSCA: This product is exempt under TSCA.

- o Technical instructions (air):

Class Share in %

III 20.0

- o Water hazard class: Generally not 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