MATERIAL SAFETY DATA SHEET
Product Group: Isopropyl Alcohol Swabs (Butterfly & Regular)

MSDS Number: VS60336-00
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CHEMICAL PRODUCT AND COMPANY IDENTIFICATION - SECTION 1

Company Identification: Becton Dickinson VACUTAINER Systems
A Division of Becton Dickinson and Company
1 Becton Drive
Franklin Lakes, NJ 07417-1885

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT:
In the continental U.S., call Chemtrec: 1-800-424-9300
For additional non-emergency information, call: 1-800-631-0174

Product Name: Becton Dickinson Single Use Swabs (Butterfly and Regular)
Reorder Number: 6893, 6894
Synonym(s): IPA, Isopropanol, Isopropyl Alcohol
Chemical Formula: CH₃CHOHCH₃
Chemical Family: Alcohol

COMPOSITION/INFORMATION ON INGREDIENTS - SECTION 2

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Exposure Limits</th>
<th>Weight (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>67-63-0</td>
<td>400 ppm (TWA)</td>
<td>70%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>500 ppm (STEL)</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
<td>30%</td>
</tr>
</tbody>
</table>

HEALTH EFFECTS SUMMARY - SECTION 3

The following information summarizes human experience and results of scientific investigations reviewed by health professionals for hazard evaluation of and development of Precautionary Measures and Occupational Control Procedures recommended in this document.

Primary Route of Entry: Dermal contact, eye contact, and inhalation
Medical Conditions Which Might be Aggravated: None expected.

Acute Exposure Effects:
1. Skin: May irritate and cause dermatitis.
2. Eyes: Will cause irritation and injure eye if not removed promptly.
3. Inhalation: May cause irritation to the respiratory tract. May cause headaches, dizziness and may have other central nervous system effects.
4. Ingestion: Minimal Toxicity. Small amount of liquid aspirated into respiratory system during ingestion, or from vomiting, may cause bronchopneumonia or pulmonary edema.

Repeated Exposure Effects:
1. Skin: May irritate and cause dermatitis.
2. Inhalation: Will cause irritation and injure eye tissue.
3. Ingestion: Minimal Toxicity.
EMERGENCY AND FIRST AID PROCEDURES - SECTION 4

Skin: For large doses, flush with copious amounts of water, using soap if available, while removing contaminated clothing and shoes.

Eyes: At any exposure level, flush eyes with plenty of water for at least 15 minutes. Get prompt medical attention.

Inhalation: Remove to fresh air. Give artificial respiration ONLY if breathing has stopped.

Ingestion: Seek medical attention. Do NOT induce vomiting. Keep at rest.

FIRE PROTECTION INFORMATION - SECTION 5

Flash Point: 54°F Method: TCC
Autoignition Temperature: > 662°F Method: N/A
Combustibility: LEL: 2.0 UEL: 12.7 @ 77°F
Extinguishing Media: Either allow fire to burn under controlled conditions or extinguish with alcohol type foam and dry chemical.

Special Fire Fighting Procedures: Use water spray to cool fire exposed surfaces and protect personnel. If a leak or spill has not ignited, use water spray to disperse the vapors.

ACCIDENTAL RELEASE MEASURES - SECTION 6

Avoid overexposure. Spill should be contained with inert material, and gathered into a suitable retaining area. Use water spray to reduce vapors. Take up with sand or other inert non-combustible material. Wash site thoroughly with water.

HANDLING AND STORAGE PROCEDURES - SECTION 7

Follow routine safe handling procedures. Store in a cool, well ventilated place away from incompatible materials. Do not handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight.

OCCUPATIONAL CONTROL PROCEDURES - SECTION 8

Eye Protection: Use safety glasses Skin Protection: Uniform and/or apron
Respiratory Protection: None required with adequate ventilation
Ventilation: Use general or local exhaust ventilation to meet TLV requirements.
Airborne Exposure Limits: TLV Other Protective Equipment: Eye bath

PHYSICAL PROPERTIES - SECTION 9

Appearance: Clear liquid Odor: Mild rubbing alcohol
Vapor Pressure (@20°C mm Hg): 95 Viscosity @ 40°C (centistokes): 2.7 at 68°F
Specific Gravity @ 25°C: > 1.0 Solubility in Water (wt. %): 100%
Solubility in Other Solvents: N/A

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.
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REACTIVITY DATA - SECTION 10

Reactivity: Stable

Incompatibility: Caustic, amines, alkanolamines, aldehydes, strong oxidizing agents, and chlorinated compounds.

Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.

Hazardous Polymerization: Will not occur.

TOXICOLOGY INFORMATION - SECTION 11

Acute Eye Effects: Will cause irritation. Acute Skin Effects: May cause irritation.
Inhalation Toxicity: May cause irritation Ingestion Toxicity: May be toxic.
Exposure Limits: See Section 2 Reproductive Toxicity: Not established.

Teratogenicity: In developmental toxicity studies conducted by the Chemical Manufacturers Associates, unexpected acute toxicity was found when Isopropyl alcohol was administered to pregnant rabbits by gavage. There were no unexpected toxic effects in pregnant rats exposed in the same study. In rats, there were some relatively mild developmental effects at maternally toxic levels. There was no evidence of developmental toxicity in the rats at levels which did not also produce maternal toxicity. There were no indications of developmental toxicity in the rabbits at any exposure level.

Mutagenicity: Not established. Synergistic Products: Not established.
Sensitization to Product: Not established.
Carcinogenicity: Contains more than 0.1% by weight of a material listed as a potential carcinogen by:
NTP No IARC No OSHA No

Other Chronic Effects: None expected

Signs and Symptoms of Overexposure: Skin irritation, headaches, dizziness and general anesthetic effects.

Medical Conditions Generally Aggravated by Overexposure: None identified.

ECOLOGICAL INFORMATION - SECTION 12

No data is available on the adverse effects of this material on the environment. Neither COD nor BOD data are available.

DISPOSAL CONSIDERATIONS - SECTION 13

Disposal should be done in accordance with local, state and federal regulations.

TRANSPORTATION INFORMATION - SECTION 14

D.O.T

Proper Shipping Name: ISOPROPANOL
Hazard Class/I.D. No./Packing Group: 3, UN 1219, PG II.

Label: None required when package as swab.
Proper Shipping Name: ISOPROPANOL

Hazard Class/ID. No./Packing Group: 3, UN 1219, PG II.

Label: None required when package as swab

I.C.A.O./I.A.T.A.

Proper Shipping Name: ISOPROPANOL

Hazard Class/ID. No./Packing Group: 3, UN 1219, PG II.

Label: None required when package as swab

REGULATORY INFORMATION - SECTION 15

TSCA Inventory: Yes

Reportable Quantity (RO) Under US EPA CERCLA Regulations: None

SARA Hazard Notification Hazard Categories Under Criteria of SARA Title III Rules
(40 CFR Part 370): Yes (Section 311/312 if stored in excess of threshold planning quantity)

Section 313 Toxic Chemical(s): None

Hazardous Chemical(s) Under OSHA Hazard Communication Standard: Yes

OTHER INFORMATION - SECTION 16

Label Information: FLAMMABLE LIQUID

Hazard Ratings:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
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</thead>
<tbody>
<tr>
<td>Fire – 1</td>
<td>Health – 2</td>
</tr>
<tr>
<td>Health – 3</td>
<td>Flammability – 3</td>
</tr>
<tr>
<td>Reactivity – 0</td>
<td>Reactivity – 0</td>
</tr>
<tr>
<td>Specific Hazard – 3</td>
<td></td>
</tr>
</tbody>
</table>

Information Contact: Becton Dickinson VACUTAINER Systems
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Franklin Lakes, NJ 07417-1885

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