SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Substance name : Tubing Fluid Formula TF-24

Manufacturer or supplier's details
Company name of supplier : Ethicon Inc.
Address : PO Box 151 Route 22 West Somerville, NJ 08876 US
Telephone : (877) 384-4266
Emergency telephone number : +32 14 60 24 44
E-mail address Responsible/issuing person : SDSJanssen@its.jnj.com

Recommended use of the chemical and restrictions on use
Recommended use : Tubing Fluid for Gut Suture

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids : Category 2
Eye irritation : Category 2A
Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

GHS Label element

Medicinal devices are not subject to GHS labeling.

Hazard pictograms : 

Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
Precautionary statements:

**Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces.
No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
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/eye protection/face protection.

**Response:**
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

**Disposal:**
P501 Dispose of contents/container to an approved waste disposal plant.

**Other hazards**
None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature: Mixture

**Hazardous components**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>propan-2-ol</td>
<td>isopropyl alcohol</td>
<td>&gt;= 50 - &lt; 70</td>
</tr>
</tbody>
</table>

**SECTION 4. FIRST AID MEASURES**

If inhaled:
If breathed in, move person into fresh air.
If symptoms persist, call a physician.

In case of skin contact:
Take off contaminated clothing and shoes immediately.
Wash off with plenty of water. If symptoms persist, call a physician.

In case of eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Consult a physician.

If swallowed:
If swallowed, rinse mouth with water (only if the person is conscious). Call a physician immediately.

Most important symptoms and effects, both acute and delayed:
Severe eye irritation
Drowsiness
Dizziness
Headache
Nausea
Vomiting
stinging
tearing
Redness
Swelling of tissue
Blurred vision
Irritating to nose, throat and respiratory tract

Notes to physician:
Treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:
- Alcohol-resistant foam
- Water mist
- Carbon dioxide (CO2)
- Dry chemical

Unsuitable extinguishing media:
- Water spray jet

Specific hazards during firefighting:
Vapours may form explosive mixtures with air. Highly flammable. Heating can release hazardous gases.

Specific extinguishing methods:
Remove undamaged containers from fire area if it is safe to do so.

Further information:
In the event of fire, cool tanks with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for firefighters:
In the event of fire, wear self-contained breathing apparatus.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

In the event of an accidental release the emergency response team must respond based on a risk assessment and use personal protective equipment as appropriate. Do not breathe vapours or spray mist. Evacuate personnel to safe areas. Ensure adequate ventilation. Do not use sparking tools. Keep away from open flames, hot surfaces and sources of ignition.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up:

Large spills: Dam up. Soak up with inert absorbent material. Keep in properly labelled containers. Small spills: Gently cover the spill with an absorbent towel or pad. Large spills + Small spills: Keep in suitable, closed containers for disposal. Treat recovered material as described in the section "Disposal considerations". Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion:

No data available

Advice on safe handling:

To avoid thermal decomposition, do not overheat. For personal protection see section 8. Keep away from heat and sources of ignition. Avoid inhalation, ingestion and contact with skin and eyes. Use only with adequate ventilation. Do not use sparking tools. Do not smoke. Use only in an area containing explosion proof equipment. Take precautionary measures against static discharges. Ensure all equipment is electrically grounded before beginning transfer operations. Avoid inhalation of vapour or mist.

Conditions for safe storage:

To maintain product quality, do not store in heat or direct sunlight. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Take measures to prevent the build up of electrostatic charge.
Keep locked up.
Keep in an area equipped with sprinklers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>propan-2-ol</td>
<td>isopropyl alcohol</td>
<td>TWA 200 ppm</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 400 ppm</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL 400 ppm</td>
<td></td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 400 ppm</td>
<td>980 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL 500 ppm</td>
<td>1,225 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 400 ppm</td>
<td>980 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 400 ppm</td>
<td>980 mg/m³</td>
<td>OSHA P0</td>
</tr>
</tbody>
</table>

Engineering measures: All personal protective equipment should be based on a risk assessment. Consult an Environment Health Safety expert if necessary.

Personal protective equipment

Respiratory protection: Engineering controls should always be the primary method of controlling exposures.
In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
If respiratory protective equipment is needed for certain activities, the type as well as the corresponding protection factor will depend upon the risk assessment and air concentrations, hazards, physical and warning properties of substances present.
No special precautions required.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks: Impervious gloves

Eye protection: Safety glasses with side-shields
Ensure that eyewash stations and safety showers are close to the workstation location.

Skin and body protection: Wear suitable protective clothing.
Protective measures: The type of protective equipment must be selected based on the Environmental Health and Safety risk assessment. Consult a Environmental Health and Safety expert if necessary.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid
Colour: colourless
Odour: alcohol-like
Odour Threshold: No data available
pH: 10.2 - 11.4
Melting point/range: No data available
Boiling point/boiling range: 81.11 °C
Flash point: 17.8 °C
Evaporation rate: No data available
Flammability (solid, gas): No information available.
Upper explosion limit: No data available
Lower explosion limit: No data available
Vapour pressure: No data available
Relative vapour density: No data available
Relative density: 0.818 - 0.821 (20 °C)
Density: No data available
Solubility(ies)
Water solubility: soluble
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
 SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : To avoid thermal decomposition, do not overheat. Heat, flames and sparks.

Incompatible materials : Acids
                      : Strong oxidizing agents
                      : Cyanides
                      : Acid chlorides

Hazardous decomposition products : None known.

 SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Skin corrosion/irritation

Product: Remarks: Non persistent irritation

Serious eye damage/eye irritation

Product: Result: May cause eye irritation.

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.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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.

Reproductive toxicity
No data available

STOT - single exposure

Product:
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Repeated dose toxicity
No data available

Aspiration toxicity
No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects

Product:
Ozone-Depletion Potential
Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. This product has no known ecotoxicological effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: In accordance with National, Federal, State and Local regulations.
Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

DOT
UN number: 1993
Description of the goods: Flammable liquids, n.o.s. (propan-2-ol)
Class: 3
Packing group: II
Labels: 3
Emergency Response: 128
Guidebook Number
Environmentally hazardous: no

IATA
UN number: 1993
Description of the goods: Flammable liquid, n.o.s. (propan-2-ol)
Class: 3
Packing group: II
Labels: 3
Packing instruction (CAO): 364
Packing instruction (PAX and CAO): 353
Packing instruction (LQ): Y341
Environmentally hazardous: no

IMDG
UN number: 1993
Description of the goods: FLAMMABLE LIQUID, N.O.S. (propan-2-ol)
Class: 3
SAFETY DATA SHEET

Packing group: II
Labels: 3
EmS Number 1: F-E
EmS Number 2: S-E
Marine pollutant: no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Pollution category:
Ship type:

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):
propan-2-ol isopropyl alcohol 100 %

Clean Water Act
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know
propan-2-ol isopropyl alcohol 90 - 100 %

Pennsylvania Right To Know
propan-2-ol isopropyl alcohol 90 - 100 %

New Jersey Right To Know
propan-2-ol isopropyl alcohol 90 - 100 %
California Prop 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Other regulations: Restricted to professional users.

This product is not subject to TSCA and TSCA 12(b) Export notification because Food, Drugs and cosmetic products are exempt.

SECTION 16. OTHER INFORMATION

Further information

**NFPA:**

- Flammability
- Health
- Instability
- Special hazard.

**HMIS III:**

- HEALTH
- FLAMMABILITY
- PHYSICAL HAZARD

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

Revision Date: 2015/08/09

Date and Number Formats

This document uses the following notation for printing dates and numbers:

**Date:** Dec 31th, 2012 as 2012/12/31

**Numbers:** 123456,78 as 123,456.78

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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