AUGUST 1, 1999
(VERSION2.0899)

PRODUCT REFERENCE: AG-TEK® SURGICAL SUTURE/CATGUT CHROMIC

Dear Customer:

In compliance with the Occupational Safety and Health Administration Hazard Communication Standard, 29 CFR 1910.1200, we are providing a Material Safety Data Sheet (Version 2.0899) for **AG-TEK® SURGICAL SUTURE/CATGUT CHROMIC**. This MSDS also provides information on any toxic chemicals subject to the reporting requirements of Section 13 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).

If this product, or any components of it, is considered hazardous or carcinogenic under the OSHA Hazard Communication Standard, information is provided in the "HAZARDS IDENTIFICATION" Section.

If you have any questions, please contact our office.

Sincerely yours,

AG-TEK® DIVISION/KANE ENTERPRISES, INC.
George K. Kane
President

LIQUID COMPONENT
AG-TEK® SURGICAL SUTURE/CATGUT CHROMIC
MATERIAL SAFETY DATA SHEET

EMERGENCY CONTACT:
CHEMTREC 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
MANUFACTURED BY:
Shell Chemicals UK Ltd.
Heronbridge House, Chester Business Park
CH4 90A Chester, United Kingdom
Tel: 01244 685000 Fax: 01244 685010
Emergency Tel: 0171 257 5515
EXCLUSIVELY DISTRIBUTED IN USA BY:
Kane Enterprises, Inc.
P. O. Box 1043
Sioux Falls, SD 57101-1043
1-800-336-8577

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance formal name :	Propan-2-ol
Substance chemical family:	Alcohol
Common name:	IPA
Synonyms:	Isopropanol
	Propanol, occ.
	Propyl alcohol, sec-IPS
	Dimethyl carbinol
CAS number :	67-63-0

3. HAZARDS IDENTIFICATION
Human health hazards: Irritating to eyes. Narcotic at high vapor concentrations.
Safety hazardS: Highly flammable. In use, may form flammable/explosive vapor-air mixture.
Environmental hazards: Annex I substance under review by the EU Commission.

4. FIRST AID MEASURES
SYMPTOMS AND EFFECTS
Headache, dizziness, nausea, narcosis, dryness of the skin. Ingestion may cause inebriation, coma. Irritation of the skin, eyes and respiratory tract. If symptoms develop, immediately move individual away from exposure and into fresh air.
EYE
Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.
SKIN
Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.
INGESTION (SWALLOWING)
Do not induce vomiting. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with head down. Seek medical attention. If possible do not leave individual unattended.

INHALATION
If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen.
Note to Physicians - No data.

5. FIRE FIGHTING MEASURES

Specific Hazards
Hazardous combustion products may include carbon monoxide. The vapor is heavier than air, spreads along the ground and distant ignition is possible.
Suitable Extinguishing Media
Alcohol resistant foam
Water spray or fog
Dry chemical powder
Carbon dioxide
Sand or earth may be used on small fires only.
Unsuitable Extinguishing Media for Safety Reasons
Full water jet
Special Protective Equipment for Fire Fighting
Use self-contained breathing apparatus
Wear full protective suit
Other Important Information
Keep the adjacent containers cooled by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Small Spill
Absorb or contain liquid with sand, earth, or spill control material. Shovel up and place in a labeled, sealable container for subsequent safe disposal. Put leaking containers in a labeled drum or over-drum. Flush contaminated area with plenty of water. Retain washings
as contaminated waste.
Large Spill
Transfer to a labeled, sealable container for product recovery or safe disposal. Treat residue as for small spillage.
Other Information
There is a risk of explosion. Please inform an emergency services if the liquid enters a surface drain. The vapors may form an explosive mixture with air. See Section 13 for information on disposal.

7. HANDLING AND STORAGE

Handling
Avoid contact with eyes and prolonged or repeated exposure with skin. Extinguish any naked flames, remove from any ignition sources, avoid all sparks, do not smoke, and do not empty into drains.
Handling Temperatures: Ambient
Storage
Keep away from direct sunlight and other sources of heat or ignition. Do not smoke in the storage area. Keep the container tightly closed and in a well ventilated place. Keep storage temperatures ambient.

8. Exposure Controls / Personal Protection

Occupational exposure
Standards
Isopropyl alcohol
TLV (EH40/95)
ISOPROPYL ALCOHOL TWA (8 h) = 400 ppm
TWA (8 h) = 980 mg/m^3
STEL (15 min) = 500 ppm
STEL (15 min) = 1225 mg/m^3
Engineering Control Measures
Use only in a well ventilated area.
Respiratory Protection
No specific measures.
Eye Protection
Mono-goggles
Body Protection
Standard issue work clothes, with safety shoes or boot that are chemical resistant.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: Liquid
Odor: Characteristic
Color: Clear
Changes in Physical State
Initial Boiling Point: 82-83 degrees C (ASTM D-1078)
Flash Point: 12 degrees C (Abel)
Auto-Ignition Temperature: 425 degrees C (ASTM D-2155)
Lower Explosion Limit: 2 % (v/v)
Upper Explosion Limit: 12% (v/v)
Vapor Pressure: 4100 Pa at 20 degrees C
Density: Typical 785 kg/m3 at 20 deg. C (ASTM D-4052)
Solubility in water
Completely capable of being mixed.
N-Octanal/Water partition : 0.05
Dynamic Viscosity: 2.43mPa.s (ASTMD-445)
Odor Threshold: Ca. 30 ppm
Molecular Mass: 60.1
Electrical Conductivity: 6 micro S/m at 20 deg. C (ASTM D-4308)
Surface Tension: 22.7 mN/m at 20 deg. C

10. STABILITY AND REACTIVITY

Stability
Stable under normal use conditions. Reacts with strong oxidizing agents and strong acids.

Conditions to Avoid
Heat, flames and sparks
Materials to Avoid
Strong oxidizing agents and acids
Decomposition Products
None known

11. TOXICOLOGICAL INFORMATION

Basis for Assessment
Information given is based on product data.
Acute Oral Toxicity (LD 50)
Low toxicity, LD50 > 2000 mg/kg
Acute Dermal Toxicity (LD50)
Low toxicity, LD50 >2000 mg/kg
Acute Inhalation Toxicity (LC50)
Low toxicity, LC50 > 5 mg/1
Skin Irritation
Non-irritating
Eye Irritation
Irritant
Skin Sensitization
Data not available
Repeated Dose Toxicity
Repeated exposure affects the nervous system. Effects were seen at high doses only.
Mutagenicity
Not mutagenic
Human Effects
Vapor and liquid may cause eye irritation. Narcotic at high vapor concentrations. Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.

12. ECOLOGICAL INFORMATION

Basis for Assessment
Information given is based on product data.
Mobility
Dissolves in water. Lost within a day by evaporation and dissolution. Large volumes may penetrate soil and could contaminate groundwater.
Persistence / Degradability
Readily biodegradable meeting the 10 day window criterion. Expected to degrade under anaerobic conditions. Oxidizes rapidly by photo-chemical reactions in air. Integrated environmental half-line expected to be 1 - < 10 days. Dominant loss process - biodegradation. Poses a significant risk of oxygen depletion in aquatic systems.
Bioaccumulation
Does not bioaccumulate significantly.
Acute Toxicity - Fish
Practically non toxic 100 < LC/EC/IC 50 > 1000 mg/1.
Acute Toxicity
Practically non toxic, LC/EC/IC 50 > 1000 mg/1.
Acute Toxicity - Algae
Expected to be practically non toxic, LC/EC/IC 50 > 1000 mg/1.
Acute Toxicity - Bacteria
Practically non toxic, LC/EC/IC 50 > 1000 mg/1.
Sewage Treatment
Practically non toxic, LC/EC/IC 50 > 1000 mg/1.

13. DISPOSAL CONSIDERATIONS

Precautions
Refer to Section 7 before handling the product or containers.
Waste Disposal
Recover or recycle if possible
Incineration
Product Disposal
Recover or recycle if possible
Incineration
Container Disposal
Drain container thoroughly, after draining, vent in a safe place away from sparks and fire. Send to drum recoverer or metal reclaimer. Residue may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums.
Local Legislation
The recommendations given are considered appropriate for safe disposal. However, local regulations may be more stringent and these must be complied with.

14. TRANSPORT INFORMATION

Road Transport ADR/RID
Class : 3
Item : 3 (B)
Hazard Symbol : Flammable liquid
Proper Shipping Name : ISOPROPANOL (Isopropanol Alcohol)
Kemler Number : 33
UN No. : 1219
Maritime Transport IMO
UN No. : 1219
Class : 3.2
Packing Group : IT
Hazard Symbol : Flammable liquid
Marine Pollutant : No
Proper Shipping Name : ISOPROPANOL (Isopropanol Alcohol)
Air Transport ICAO/IATA
UN No. : 1219
Class : 3
Packing Group : ri
Hazard Symbol: Flammable liquid
Proper Shipping Name: ISOPROPANOL (Isopropanol Alcohol)

15. REGULATORY INFORMATION

EC Label Name: ISOPROPYL ALCOHOL

EC Classification: Highly Flammable Irritant
EC Symbol: Highly Flammable Irritant
EC Risk Phrases: (R36) Irritating to eyes
(R11) Highly flammable
EC Safety Phrases: (S7) Keep container tightly closed.
(S16) Keep away from sources of ignition - No smoking.
(S26) In case of contact with eyes, rinse immediately with plenty of water & seek medical advice.
TSCA (USA): Listed
AICS (Australia): Listed
DSL (Canada): Listed
EC Annex I Number: 603-003-00-0
EINECS (EC): 200-661-7
MITI (Japan): 2-207
TCCL (Korea): 2-1436
PISSC (Phillipine): Listed

16. OTHER INFORMATION

Uses and Restrictions

Use as a solvent only in industrial manufacturing processes.

SDS Distribution

The information in this document should be made available to all who may handle the product. This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.