

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name: D&S BioLac
CAS Number: Mixture
Product Use: Used as a lacquer base for lithography stones, plates, and as a hard ground for copper. .
Company Information: US Fluids Inc.
 198-202 Benton Drive
 East Longmeadow, MA 01028
Emergency Contact: CHEMTREC (U.S. and Canada) 1-800-424-9300
 CHEMTREC (Outside the U.S.) 1-703-527-0585
Technical Contact: US Fluids Inc 413-525-0660
MSDS Revision Date: NA
MSDS Supersedes Date: NA
MSDS Creation Date: February 22nd 2012

2. Composition / Information on Ingredients (Typical Values)

HAZARDOUS INGREDIENTS	CAS NO.	WT %	ACGIH(TLV)	OSHA(PEL)†	Carcinogen
Actylol	97-64-3	65 - 85	NE	NE	No
Non-Hazardous Components	Proprietary	15 - 35	NE	NE	No

NE = Not Established ND = Not Determined

This product is not considered to be a carcinogen by the IARC, ACGIH, NTP, or OSHA

3. Hazard Identification

Emergency Overview: Health injuries are not known or expected under normal use. Product may cause eye irritation. Product may cause skin irritation. Inhalation of vapor or mist may cause irritation of the mucous membranes. Ingestion may cause irritation of the digestive tract. Prolonged or repeated exposure increases the risk. Combustible liquid avoid heat, sparks, and flames.

Potential short term health effects:

Routes of Exposure: Eyes, Skin, Inhalation, Ingestion. Most common, skin and inhalation.

Eyes: Contact with eyes may cause irritation.

Skin:	Prolonged and/or repeated skin contact may result in mild irritation and reddening, possibly drying and cracking.
Inhalation:	Avoid breathing vapors or mists of this product. Product may cause irritation of the respiratory tract.
Ingestion:	Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.
Target organs:	Not established.
Chronic effects:	Persistent irritation or dermatitis.
Main symptoms:	May cause eye/skin irritation. Inhalation of vapors may cause irritation of the respiratory system.

4. First Aid Measures

General advice:	In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes. If you feel unwell, seek medical advice (show the MSDS where possible).
First Aid Procedures	
Eye contact:	Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
Skin contact:	Wash affected area with mild soap and large quantities of water for up to 15 minutes. Get medical attention if irritation develops or persists.
Inhalation:	Remove to fresh air. If discomfort occurs and persists, obtain medical attention.
Ingestion:	Obtain immediate medical attention. Show the MSDS.
Notes to physician:	Treat symptomatically.

5. Fire Fighting Measures

Flash Point:	145°F, ASTM D93
Extinguishing Media:	Water, foam, CO ₂ .
Special Fire Fighting Procedures:	As in any fire, wear self-contained breathing apparatus and full protective gear.
Unusual Fire & Explosion Hazards:	None known.
Flammable Limits:	Lel = 1.6% @ 212°F, Uel = 10.6% @ 212°F
Products of Combustion:	Carbon Oxides (CO, CO ₂)

6. Accidental Release Measures

Evacuation procedures:	Isolate area. Keep unnecessary personnel away. Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed.
Containment procedures:	Stop leak if you can do so without risk. Dike the spilled material, where this is possible.
Personal precautions:	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions:	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up:	Attempt to reclaim the free product, if this is possible. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Spill or leak procedure:	Recover all usable material. Soak up balance with sand or dirt. Material is slippery on wet or hard surfaces. Keep away from sources of ignition. Prevent entry to sewers.

7. Handling and Storage

Handling:	Avoid prolonged or repeated skin and eye contact with this material. Avoid breathing vapors or mists of this product. Wash hands after handling and before eating. Wear personal protective equipment.
Storage:	Protect from direct light. Keep away from heat, sparks, flames, and other sources of ignition. Avoid open electrical sources near product vapors. Use care in handling/storage. Keep container tightly closed when not in use. Keep in a cool, well-ventilated place. Keep away from oxidizers and acids.
Special packaging materials:	Not established.
Further information:	Not established.

8. Exposure Controls / Personal Protection

Personal protective equipment

Respiratory protection:	No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment.
Hand protection	Wear appropriate chemical resistant gloves.
Eye protection:	Wear safety glasses with side shields or chemical goggles. If splashes are likely to occur, wear: face-shield.
Skin and body protection:	Normal work clothing (long sleeved shirts and long pants) is recommended. If clothing becomes contaminated, remove and launder before reuse. Industrial safety shoes are recommended.
General:	Avoid contact with skin and eyes. Wear suitable protective equipment.
Control parameters:	Not established.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls:	Ventilation in area, safety shower, eyewash area.
Engineering measures	
To reduce exposure:	Provide adequate ventilation. Ventilation should effectively remove and prevent buildup of any vapor/mist/fume/dust generated from the handling of this product.

9. Physical and Chemical Properties

Form:	Liquid
Color:	Clear, Colorless
Odor:	Mild Odor
Water Solubility:	Partially Soluble
Boiling Point:	154°C, (309.2°F)
pH:	Not Established
Specific Gravity:	1.025 – 1.045
Vapor Pressure:	1.7 mmHg @ 20°C
% Volatile:	~100%
Vapor Density:	4.07 (Air = 1)
Evaporation Rate:	0.22 (Butyl Acetate = 1)
Viscosity:	Not Established
Melting Point:	Non Applicable

The above data is typical values and does not constitute as specifications.

10. Chemical Stability and Reactivity Information

Stability:	Stable under normal conditions
Conditions to avoid:	Avoid contact with strong oxidizing agents. Avoid heat, sparks, and open flame.
Hazardous decomposition products:	None known
Hazardous Polymerization:	Not expected to occur.
Incompatibility:	Strong acids and oxidizers.

11. Toxicological Information

Acute oral toxicity:	(LD50) > 4090 mg/kg (rat) (RTECS 1985-6)
Acute dermal toxicity:	(LD50) > 2000 mg/kg (rat/24hrs)
Acute inhalation toxicity:	(LD50) > 5400 mg/m ³ (rat/4hrs)
Routes of Exposure:	Inhalation, Ingestion, Skin contact, Eye contact
Carcinogenicity:	Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA
Epidemiology:	No data available for this product.
Neurotoxicity:	No data available for this product
Teratogenicity:	No data available for this product
Mutagenicity:	No data available for this product.
Further information:	No data available for this product
Reproductive Toxicity:	No data available to indicate product or any components present at > 0.1% may cause reproductive toxicity.
Chronic Toxicity:	No data available to indicate product or any components present at > 1.0% are chronic health hazards.
Acute Effects Of Overexposure:	May cause eye irritation.

12. Ecological Information

Ecotoxicity:	No data available for this product.
Environmental effects:	No adverse effects known or suspected. Not listed as a toxic chemical under SARA Title III 302, 304, or 313.
Persistence / degradability:	100% Biodegradable.
Bioaccumulation:	Not established.
Aquatic toxicity:	Not established.
Partition coefficient:	Not established.

13. Disposal Consideration

- Waste Codes:** Waste codes should be assigned by the user based on the application for which the product was used.
- Disposal instructions:** Disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations
- Waste from residues / Unused products:** Dispose of in accordance with local regulations.
- Contaminated packaging:** Do not re-use empty containers.

14. Transportation Information

- U.S. DOT classification:** Materials in non-bulk quantities (under 119 gallons) shipped domestically within the United States are non-regulated. Bulk quantities (over 119 gallons) DOT classification: Combustible liquid, n.o.s. (contains Ethyl Lactate), 3, NA1993, PGIII.
- U.S. DOT Non-Bulk** Not regulated as dangerous goods. Under 119 gallons.
- U.S. DOT Bulk** Combustible liquid, n.o.s. (contains Ethyl Lactate), 3, NA1993, PGIII
- General:** Exception allowed under 49 CFR 173.150.
- Air Transportation / IATA:** Combustible liquid, n.o.s. (contains Ethyl Lactate), 3, NA1993, PGIII
Max quantity passenger aircraft = 60L
Max quantity cargo aircraft = 220L

HMIS Codes:

Health	Flammability	Reactivity	PPE
1	2	0	B

15. Regulatory Information

US Federal Regulations

U.S. EPA TSCA Inventory List: All Components are on the TSCA list

OSHA 29 CFR 1910.1200:	This product is a “Hazardous Chemical” as defined by OSHA.
OSHA 29 CFR 1910.119:	This material is not known to be hazardous by the OSHA highly hazardous process safety standard.
CERCLA/SARA:	None Listed.

Inventory Status

Canadian Inventory (DSL):	Unknown
Canadian Inventory (NDSL):	Unknown
U.S.A. and Puerto Rico (TSCA):	In Compliance
China Inventory (IECSC):	Unknown
Europe Inventory (EINECS):	Unknown
Europe Inventory (ELINCS):	Unknown

EPA Regulations**SARA Title III (313) – Toxic Chemical Release Reporting:**

This product does not contain any chemicals which are subject to the reporting requirements of the act and title 40 of the code of Federal Regulations, Part 372.

SARA Title III (311/312) – Community Right-To-Know Requirements:

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

State Right-To-know Information

Cal. Prop. 65: This product does not intentionally contain any chemicals known by the State of California to cause cancer and/or birth defects. Moreover, we do not routinely analyze its products for impurities which may be such chemicals.

State Right-To-Know Information

Material	CAS#	Concentration	State Code
Actylol	97-64-3	>90	PA, FL, MA, NJ

SARA Title III (304) – Emergency Notification:

Extremely Hazardous Substances RQ - None

SARA Title III (301 -303) – Emergency Planning:

Extremely Hazardous Substances TPQ– None
Toxic Chemicals - None

Canadian WHMIS Classification

Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F)

16. Other Information

While this material is furnished in good faith, no warranty expressed or implied of merchantability fitness or otherwise is made as to the product described above. This material is offered for your consideration and US Fluids Inc. including its divisions, affiliates and subsidiaries, shall not in any event be liable for special, incidental or consequential damages in connection with its publication. Likewise, no statement made herein shall be construed as a permission or recommendation for use of any product in a manner that might infringe existing patents. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release. The information contained herein has been developed based upon current available scientific data. New information may be developed from time to time which may render the conclusions of this report obsolete. Therefore, no warranty is extended as to the applicability of this information to the user's intended purpose or for the consequences of its misuse.

For Technical Information
Primary Contact:

US Fluids Inc.
198 – 202 Benton Drive
East Longmeadow, MA 01028
1-413-525-0660