



SAFETY DATA SHEET

SECTION 1 — PRODUCT IDENTIFICATION

Product identifier: VLR LETTER REMOVING SOLVENT

Product Number: 1019 & 1020

Intended Use: Removal of heat applied materials from textiles.

Manufacturer's name and address: Refer to supplier

Supplier name and address:

ALBATROSS USA INC./EXPERT WORLDWIDE

36-41 36th Street
Long Island City, New York
United States
11106
718-392-6272

5439 San Fernando Road West
Los Angeles, California
United States
90039
818-543-5850

Emergency Telephone #: Chemtrec (Day or Night) 800-424-9300
(For Chemical Emergency: Spill, Leak, Fire, Exposure or Accident)

This MSDS complies with 29CFR 19190.1200 (Hazard Communication Standard) and WHMIS regulations.

IMPORTANT: Read this MSDS before handling and disposing of this product. Pass this information on to employees, customer, and users of this product.

SECTION 2 — HAZARDS IDENTIFICATION

GHS-US Classification

Flammable Liquids, Category 2, H225

Eye Irritation, Category 2A, H319

For full text of the H-Statements mentioned in this Section, see Section 16.



GHS Signal Word:

GHS Hazard Phrases:

Danger

H225: Highly flammable liquid and vapour

H319: Causes serious eye irritation

GHS Precaution Phrases:

P210 - Keep away from open flames, sparks, hot surfaces, heat. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P280 - Wear protective gloves, eye protection, protective clothing
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

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
 P501 - Dispose of contents/container to hazardous or special waste collection point,
 in accordance with local, regional, national and/or international regulation

Other Hazards No additional information available

Unknown acute toxicity (GHS US)
 Not applicable

SECTION 3 — COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Substance type: Mono-constituent

Name : 1,3-dioxolane UP Lambiotte

CAS N° : 646-06-0

Name	Product identifier	%	GHS-US classification
1,3-dioxolane	(CAS N°) 646-06-0	>= 99,96	Flam. Liq. 2, H225 Eye Irrit. 2A, H319

Full text of H-statements: see section 16

Mixture
 Not applicable

SECTION 4 — FIRST AID MEASURES

First-aid measures general: Take victim to fresh air, in a quiet place and if necessary take medical advice.

First-aid measures after inhalation: Obtain medical attention if breathing difficulty persists.

First-aid measures after skin contact: Wash skin thoroughly with mild soap and water.

First-aid measures after eye contact: Obtain emergency medical attention if pain, blinking, tears or redness persist.

First-aid measures after ingestion: If a large quantity is swallowed, immediately administer lukewarm water (1/2 litre) only if victim is completely conscious/alert and induce vomiting.

SECTION 5 — FIRE FIGHTING MEASURES

Suitable extinguishing media

Suitable extinguishing media: Foam. AFFF. Water spray.

Unsuitable extinguishing media: Do not use a heavy water stream. Dry powder.

Special hazards arising from the substance or mixture

Fire hazard: Highly flammable.

Explosion hazard: Not applicable.

Reactivity: Strong acids and oxidants.

Advice for firefighters

- Precautionary measures fire:** No naked flames, sparks, and do not smoke.
- Firefighting instructions:** Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting:** Use water spray or fog for cooling exposed containers.
- Other information:** Exercise caution when fighting any chemical fire.

SECTION 6 — ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures:**

- General measures:** No smoking.

For non-emergency personnel

- Protective equipment:** Equip clean-up crew with proper protection.
- Emergency procedures:** Keep public away.

For emergency responders

No additional information available

Environmental precautions

Clean up any spills as soon as possible, using an absorbent material to collect it. Prevent entry to sewers and public waters.

Methods and material for containment and cleaning up

- For containment:** Use suitable disposal containers.
- Methods for cleaning up:** Clean up any spills as soon as possible, using an absorbent material to collect it.

Reference to other sections

No additional information available

SECTION 7 — HANDLING & STORAGE**Precautions for safe handling**

- Additional hazards when processed:** No open flames. No smoking.
- Precautions for safe handling:** Ground well. Use special care to avoid static electric charges.

Conditions for safe storage, including any incompatibilities

- Technical measures:** Provide local exhaust or general room ventilation to minimize mist and/or vapour concentrations.
- Storage conditions:** Keep container closed when not in use.
- Incompatible products :** Strong acids and oxidants.
- Incompatible materials :** Heat sources.
- Storage temperature :** -30 / 40 °C

SECTION 8 — EXPOSURE CONTROL/PERSONAL PROTECTION**Control parameters**

1,3-dioxolane (646-06-0)

Not applicable

Exposure controls

Materials for protective clothing:	Non-static creating clothing and conductive shoes should be worn.
Hand protection:	In case of repeated or prolonged contact wear gloves.
Eye protection:	Safety glasses.
Skin and body protection:	Wear suitable protective clothing.

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Appearance:	Clear.
Colour:	Colourless
Odour:	characteristic
Odour threshold:	No data available
pH:	No data available
pH solution:	Not applicable
Melting point:	No data available
Freezing point:	- 95 °C
Boiling point:	76 °C (OECD103)
Flash point:	<= 2,5 °C (ASTM D93)
Relative evaporation rate (butylacetate=1):	0,29
Flammability (solid, gas):	No data available
Explosive limits:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available
Vapour pressure:	101 hPa (OECD104)
Relative density:	1,06
Relative vapour density at 20 °C:	No data available
Density:	1,06 g/m ³ (20°C)
Molecular mass:	74,08 g/mol
Solubility:	Water: g/l completely soluble
Log Pow:	- 0,37 (20°C)
Auto-ignition temperature:	250 °C (DIN51794)
Decomposition temperature:	No data available
Viscosity:	No data available
Viscosity, kinematic:	9,43 mm ² /s
Viscosity, dynamic:	< 10 mPa.s 20°C (OECD114)

SECTION 10 — STABILITY AND REACTIVITY**Reactivity**

Strong acids and oxidants

Chemical Stability

Stable under normal conditions. Formaldehyde may be generated when material comes in contact with strong acid

Possibility of hazardous reactions:

May form flammable vapour-air mixture.

Conditions to avoid:

No flames, no sparks. Eliminate all sources of ignition. Overheating

Incompatible materials:

Strong acids and oxidants.

Hazardous decomposition products

Stable under normal conditions

SECTION 11 — TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: Not classified

1,3-Dioxolane Ultra Pure (646-06-0)	
LD50 oral rat	>= 2000 mg/kg
1,3-dioxolane (646-06-0)	
LD50 oral rat	>= 2000 mg/kg

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitisation: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

1,3-Dioxolane Ultra Pure (646-06-0)	
NOAEL (chronic, oral, animal/male, 2 years)	75 mg/kg bodyweight
1,3-dioxolane (646-06-0)	
NOAEL (chronic, oral, animal/male, 2 years)	75 mg/kg bodyweight

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified

Specific target organ toxicity (repeated exposure): Not classified

Aspiration hazard: Not classified

SECTION 12 — ECOLOGICAL INFORMATION

Toxicity

1,3-Dioxolane Ultra Pure (646-06-0)	
LC50 fish 1	95,4 mg/l
EC50 Daphnia 1	772 mg/l
ErC50 (algae)	877 mg/l
NOEC chronic fish	546,3 mg/l
NOEC chronic crustacea	197,4 mg/l
NOEC chronic algae	877 mg/l
1,3-dioxolane (646-06-0)	
LC50 fish 1	95,4 mg/l
EC50 Daphnia 1	772 mg/l
ErC50 (algae)	877 mg/l
NOEC chronic fish	546,3 mg/l
NOEC chronic crustacea	197,4 mg/l

NOEC chronic algae	877 mg/l
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Persistence and degradability

No additional information available

Bioaccumulative potential:

1,3-Dioxolane Ultra Pure (646-06-0)	
Log Pow	- 0,37 (20°C)
1,3-dioxolane (646-06-0)	
Log Pow	- 0,37 (20°C)

Mobility in soil:

No additional information available

Other adverse effects:

Effect on the global warming: No known ecological damage caused by this product.

SECTION 13 — DISPOSAL CONSIDERATIONS

Waste Disposal Method:

Regional legislation (waste): Disposal must be done according to official regulations.

SECTION 14 — TRANSPORT INFORMATION

Department of Transportation (DOT)

In accordance with DOT

Transport document description:

UN1166 Dioxolane, 3, II

UN-No.(DOT):

UN1166

Proper Shipping Name (DOT):

Dioxolane

Class (DOT):

3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT):

3 - Flammable liquid



Packing group (DOT):

II - Medium Danger

DOT Packaging Non Bulk (49 CFR 173.xxx):

202

DOT Packaging Bulk (49 CFR 173.xxx):

242

DOT Special Provisions (49 CFR 172.102):

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
 TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / (1 + a (tr - tf)) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling

DOT Packaging Exceptions (49 CFR 173.xxx): 150

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27):	5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75):	60 L
DOT Vessel Stowage Location:	B - (i) The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) “On deck only” on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded
DOT Vessel Stowage Other:	40 - Stow “clear of living quarters”
Emergency Response Guide (ERG) Number:	127
Other information:	No supplementary information available.

TDG

No additional information available

Transport by sea

UN-No. (IMDG):	1166
Proper Shipping Name (IMDG):	DIOXOLANE
Class (IMDG):	3 - Flammable liquids
Packing group (IMDG):	II - substances presenting medium danger
EmS-No. (1):	F-E S-D

Air transport

UN-No. (IATA):	1166
Proper Shipping Name (IATA):	Dioxolane
Class (IATA):	3 - Flammable Liquids
Packing group (IATA):	II - Medium Danger

SECTION 15 — REGULATORY INFORMATION
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US Federal Regulations**1,3-Dioxolane Ultra Pure (646-06-0)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory

1,3-dioxolane (646-06-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

International regulations**Canada****1,3-Dioxolane Ultra Pure (646-06-0)**

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations**1,3-Dioxolane Ultra Pure (646-06-0)**

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)- Directive 79/831/EEC, sixth Amendment of Directive 67/548/EEC (dangerous substances)

National Regulation**1,3-Dioxolane Ultra Pure (646-06-0)**

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
 Listed on the Korean ECL (Existing Chemicals List)
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

US State Regulations

No additional information available

SECTION 16 — OTHER INFORMATION

Revision date: 08/07/2017

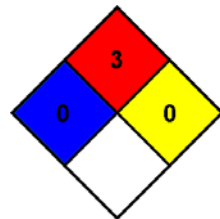
Full text of H-statements:

H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation

NFPA health hazard: 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard: 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS US (GHS HazCom 2012)

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