

Safety Data Sheet

1,3-DIOXOLANE ULTRA PURE

Version 1.1

Revision Date: 11/04/2022

SECTION 1. IDENTIFICATION

Product name : 1,3-DIOXOLANE ULTRA PURE

Synonyms : 1,3-dioxacyclopentane

Recommended use of the chemical and restrictions on use

Recommended use : industrial chemical

Restricted Uses : No data available

Manufacturer or supplier's details

Company : Univar Solutions Canada Ltd.
Address : 64 Arrow Road
 North York, ON, M9M 2L9
 Canada

Emergency telephone number:

Local Emergency Contact : During Office hours Monday-Friday, 8.00 am - 4.30 pm (Pacific Standard Time) : 1-866-686-4827

Additional Information: : Responsible Party: Product Compliance Department
 E-mail: SDSNA@univarsolutions.com
 SDS Requests: 1-855-429-2661
 Website: www.univarsolutions.com

SECTION 2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

Flammable liquids : Category 2

Serious eye damage : Category 1

Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
 H318 Causes serious eye damage.

Precautionary statements : **Prevention:**
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.
 P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
 P242 Use non-sparking tools.
 P243 Take action to prevent static discharges.
 P280 Wear protective gloves/ protective clothing/ eye protection/

Safety Data Sheet**1,3-DIOXOLANE ULTRA PURE**

Version 1.1

Revision Date: 11/04/2022

face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

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

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

CAS-No.	Chemical name	% by Weight	Synonyms
646-06-0	1,3-Dioxolane	80 - 100	1,3-Dioxolane

Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST-AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

Safety Data Sheet

1,3-DIOXOLANE ULTRA PURE

Version 1.1

Revision Date: 11/04/2022

Suitable extinguishing media	: Alcohol-resistant foam Carbon dioxide (CO ₂) Dry chemical
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: No hazardous combustion products are known
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
Advice on safe handling	: Avoid formation of aerosol. Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the ap-

Safety Data Sheet

1,3-DIOXOLANE ULTRA PURE

Version 1.1

Revision Date: 11/04/2022

Conditions for safe storage : plication area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
: No smoking.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
646-06-0	1,3-Dioxolane	TWA	20 ppm 61 mg/m ³	CA AB OEL
		TWA	20 ppm	CA BC OEL

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Colour : No data available
Odour : No data available
Odour Threshold : No data available
pH : No data available

Freezing Point : No data available

Safety Data Sheet**1,3-DIOXOLANE ULTRA PURE**

Version 1.1

Revision Date: 11/04/2022

Boiling Point	: No data available
Flash point	: 2 °C (36 °F)
Evaporation rate	: No data available
Flammability (solid, gas)	: No data 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	: No data available
Density	: No data available
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: acids amines Bases Oxidizing agents Oxygen reducing agents

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate: 5,000 mg/kg

Components:**646-06-0:**

Acute oral toxicity : LD50 Oral (Rat, male and female): > 2,000 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): 68.4 mg/l
Exposure time: 4 h

Safety Data Sheet

1,3-DIOXOLANE ULTRA PURE

Version 1.1

Revision Date: 11/04/2022

Test atmosphere: vapour

Acute dermal toxicity : Remarks: No data available

Skin corrosion/irritation

Components:

646-06-0:

Species: Rabbit

Result: Mild skin irritation

Serious eye damage/eye irritation

Product:

Result: Risk of serious damage to eyes.

Components:

646-06-0:

Species: Rabbit

Result: Irritating to eyes.

Exposure time: 72 h

Respiratory or skin sensitisation

Components:

646-06-0:

Test Type: lymph node assay

Species: Mouse

Result: Did not cause sensitisation on laboratory animals.

Remarks: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Components:

646-06-0:

Genotoxicity in vitro : Test Type: Ames test
Species: Salmonella typhimurium
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse
Result: negative

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:

646-06-0:

Carcinogenicity - Assess- : No evidence of carcinogenicity in animal studies.

Safety Data Sheet**1,3-DIOXOLANE ULTRA PURE**

Version 1.1

Revision Date: 11/04/2022

ment

ACGIH

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

Reproductive toxicity**Components:****646-06-0:**

Reproductive toxicity - Assessment

Fertility classification not possible from current data.

Teratogenicity - Assessment : Embryotoxicity classification not possible from current data.

Further information**Product:**

Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****646-06-0:**

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 100 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 772 mg/l
Exposure time: 48 h
Test Type: semi-static test

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 877 mg/l
Exposure time: 72 h
Test Type: static test

Persistence and degradability**Components:****646-06-0:**

Biodegradability : Inoculum: Activated sludge, domestic, non-adapted
Biodegradation: 3.7 %
Exposure time: 35 d
Remarks: Not readily biodegradable.

Safety Data Sheet**1,3-DIOXOLANE ULTRA PURE**

Version 1.1

Revision Date: 11/04/2022

Bioaccumulative potential**Components:****646-06-0:**Partition coefficient: n- : log Pow: -0.37
octanol/water**Mobility in soil**

No data available

Other adverse effects**Product:**Additional ecological infor- : No data available
mation**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**Waste from residues : Dispose of in accordance with all applicable local, state and
federal regulations.
For assistance with your waste management needs - including
disposal, recycling and waste stream reduction, contact Uni-
var Solutions ChemCare: 1-800-637-7922Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.**SECTION 14. TRANSPORT INFORMATION****TDG (Transportation of Dangerous Goods):**

UN1166, DIOXOLANE, 3, II

IATA (International Air Transport Association):

UN1166, Dioxolane, 3, II

IMDG (International Maritime Dangerous Goods):

UN1166, DIOXOLANE, 3, II, Flash Point: 2 °C (36 °F)

SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

Safety Data Sheet

1,3-DIOXOLANE ULTRA PURE

Version 1.1

Revision Date: 11/04/2022

DSL	: All components of this product are on the Canadian DSL
AICS	: Not in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions EHS Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 11/04/2022

Material number:
16202749, 16176236, 16170270

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic

Safety Data Sheet

1,3-DIOXOLANE ULTRA PURE

Version 1.1

Revision Date: 11/04/2022

GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		