

SUBLIME

Version	Revision Date:	Date of last issue: 2023-03-28	Print Date:
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SECTION 1. IDENTIFICATION

Product name : SUBLIME
Article-No. : 349002
Other means of identification : No data available

Manufacturer or supplier's details

Company name of supplier : Klüber Lubrication NA LP
9010 County Road 2120
Tyler, Texas 75707
USA
Phone: +1 903 534-8021
Fax: +1 903 581-4376

32 Industrial Drive
Londonderry, NH 03053
USA
Phone: +1 603 647-4104
Fax: +1 603 647-4106

E-mail address of person responsible for the SDS : mcm@us.kluber.com
Material Compliance Management

Emergency telephone number : +1-517-545-7070 NCEC

Recommended use of the chemical and restrictions on use

Recommended use : Decalcification agent
Restrictions on use : Restricted to professional users.

SECTION 2. HAZARDS IDENTIFICATION


GHS classification in accordance with the Hazardous Products Regulations

Corrosive to metals : Category 1
Skin irritation : Category 2
Serious eye damage : Category 1

GHS label elements

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Hazard pictograms : 

Signal word : Danger

Hazard statements : May be corrosive to metals.
Causes skin irritation.
Causes serious eye damage.

Precautionary statements : **Prevention:**
Keep only in original packaging.
Wash skin thoroughly after handling.
Wear protective gloves/ eye protection/ face protection.
Response:
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.
If skin irritation occurs: Get medical advice/ attention.
Absorb spillage to prevent material damage.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : water
Acid.
Solvent

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Hydrogen chloride	hydrochloric acid	7647-01-0	Trade secret** ($\geq 5 - < 10$ *)
(2-methoxymethylethoxy)propanol	(2-methoxymethylethoxy)propanol	34590-94-8	Trade secret** ($\geq 1 - < 5$ *)

* Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

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- If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
Get medical attention immediately.
- If swallowed : Move the victim to fresh air.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do NOT induce vomiting.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.
Skin contact may provoke the following symptoms:
Erythema
- Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon oxides
Halogenated compounds
- Further information : Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

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Store in accordance with the particular national regulations.
Keep in properly labelled containers.

Protect from frost.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Hydrogen chloride	7647-01-0	(c)	2 ppm 3 mg/m3	CA AB OEL (2009-04-30)
		C	2 ppm	CA BC OEL (2006-11-29)
		C	2 ppm	CA QC OEL (2020-03-11)
		C	2 ppm	ACGIH (2007-01-01)
(2-methoxymethylethoxy)propanol	34590-94-8	TWA	100 ppm 606 mg/m3	CA AB OEL (2018-05-31)
		STEL	150 ppm 909 mg/m3	CA AB OEL (2018-05-31)
		TWAEV	100 ppm 606 mg/m3	CA QC OEL (2006-12-29)
		STEV	150 ppm 909 mg/m3	CA QC OEL (2006-12-29)
		TWA	100 ppm	CA BC OEL (2022-06-22)
		STEL	150 ppm	CA BC OEL (2022-06-22)
		TWA	50 ppm	ACGIH (2022-01-01)

Engineering measures : Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Type A

Hand protection
Material : Nitrile rubber

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Break through time : > 10 min
Protective index : Class 1

Remarks : Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.

Eye protection : Tightly fitting safety goggles

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : yellow

Odour : pleasant

Odour Threshold : No data available

pH : 0.5 (20 °C)
Concentration: 100 %

Melting point/range : No data available

Boiling point/boiling range : 100 °C

Flash point : does not flash

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

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Flammability (liquids)	:	Will not burn
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	23 hPa (20 °C)
Relative vapour density	:	No data available
Relative density	:	1.04 (20 °C) Reference substance: Water The value is calculated
Bulk density	:	No data available
Solubility(ies)	:	
Water solubility	:	soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	Not applicable
Explosive properties	:	Not explosive
Oxidizing properties	:	No data available
Sublimation point	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No hazards to be specially mentioned.
Chemical stability	:	Stable under normal conditions.

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- Possibility of hazardous reactions : Exothermic reaction with alkalis.
Corrosive in contact with metals
Gives off hydrogen by reaction with metals.
- Conditions to avoid : No conditions to be specially mentioned.
- Incompatible materials : Bases
Strong oxidizing agents
Metals
- Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

- Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method
- Acute dermal toxicity : Symptoms: Redness, Local irritation

Components:

Hydrogen chloride:

- Acute oral toxicity : Assessment: The component/mixture is moderately toxic after single ingestion.

(2-methoxymethylethoxy)propanol:

- Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
- Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Product:

- Species : Rabbit
- Exposure time : 4 h
- Assessment : Irritating to skin.
- Result : Skin irritation
- Remarks : Irritating to skin.

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Components:

Hydrogen chloride:

Assessment : Causes burns.
Result : Corrosive after 3 minutes to 1 hour of exposure

(2-methoxymethylethoxy)propanol:

Species : Rabbit
Assessment : No skin irritation
Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Bovine cornea
Result : Irreversible effects on the eye
Assessment : Risk of serious damage to eyes.
Method : OECD Test Guideline 437

Remarks : Risk of serious damage to eyes.

Components:

Hydrogen chloride:

Result : Corrosive
Assessment : Corrosive

(2-methoxymethylethoxy)propanol:

Species : Humans
Result : No eye irritation
Assessment : No eye irritation

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

Hydrogen chloride:

Assessment : Does not cause skin sensitisation.
Result : Does not cause skin sensitisation.

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(2-methoxymethylethoxy)propanol:

Assessment : Does not cause skin sensitisation.
Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Carcinogenicity

Product:

Remarks : No data available

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

STOT - single exposure

Components:

Hydrogen chloride:

Exposure routes : Inhalation
Target Organs : Respiratory Tract
Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

(2-methoxymethylethoxy)propanol:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Components:

(2-methoxymethylethoxy)propanol:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

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Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

Product:

This information is not available.

Components:

Hydrogen chloride:

No aspiration toxicity classification

(2-methoxymethylethoxy)propanol:

No aspiration toxicity classification

Further information

Product:

Remarks : Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :
Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates :
Remarks: No data available

Toxicity to algae/aquatic plants :
Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

Components:

(2-methoxymethylethoxy)propanol:

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Toxicity to fish : LC50 (Poecilia reticulata (guppy)): > 1,000 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,919 mg/l
Exposure time: 48 h
Test Type: Immobilization
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): > 969 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

Components:

(2-methoxymethylethoxy)propanol:

Biodegradability : aerobic
Result: rapidly biodegradable
Biodegradation: 75 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Components:

Hydrogen chloride:

Partition coefficient: n- : log Pow: 0.25

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octanol/water

(2-methoxymethylethoxy)propanol:

Partition coefficient: n-
octanol/water : log Pow: 0.004 (25 °C)

Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among
environmental compartments : Remarks: No data available

Other adverse effects

Product:

Additional ecological
information : No information on ecology is available.

Components:

Hydrogen chloride:

Results of PBT and vPvB
assessment : Non-classified vPvB substance Non-classified PBT substance

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of waste product or used containers according to local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

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UN number : UN 1789
Proper shipping name : HYDROCHLORIC ACID SOLUTION, HYDROCHLORIC ACID
Class : 8
Packing group : III
Labels : 8

IATA-DGR

UN/ID No. : UN 1789
Proper shipping name : Hydrochloric acid, solution, Hydrochloric acid
Class : 8
Packing group : III
Labels : Corrosives
Packing instruction (cargo aircraft) : 856
Packing instruction (passenger aircraft) : 852

IMDG-Code

UN number : UN 1789
Proper shipping name : HYDROCHLORIC ACID SOLUTION, HYDROCHLORIC ACID

Class : 8
Packing group : III
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

TDG

UN number : UN 1789
Proper shipping name : HYDROCHLORIC ACID SOLUTION, HYDROCHLORIC ACID

Class : 8
Packing group : III
Labels : 8
ERG Code : 157
Marine pollutant : no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

Canadian lists

No substances are subject to a Significant New Activity Notification.

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No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / C	:	Ceiling limit
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA AB OEL / (c)	:	ceiling occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA BC OEL / STEL	:	short-term exposure limit
CA BC OEL / C	:	ceiling limit
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value
CA QC OEL / C	:	Ceiling

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity

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Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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