



Material Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Theolum
SYNONYMS: Acid Cleaner
PRODUCT CODES: 100970

MANUFACTURER: Theochem Laboratories Inc
ADDRESS: 7373 Rowlett Park Drive
Tampa, FL 33610-1141

EMERGENCY PHONE: ChemTel: North America: 1-800-255-3924
International: +01-813-248-0585

CHEMICAL NAME: Hydrofluoric & Phosphoric Acid
CHEMICAL FAMILY: Mixture
CHEMICAL FORMULA: NA
PRODUCT USE: Cleaning
PREPARED BY: TB
REVISION NUMBER: 1.1
MSDS REVISION DATE: 10/11/07

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Components listed in this section may contribute to the potential hazards associated with exposure to the concentrate. The product may contain additional non-hazardous or trade-secret components.

INGREDIENT:

	<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>	<u>SARA 313 REPORTABLE</u>
Hydrofluoric Acid	7664-39-3	< 5 %	NA	No
Phosphoric Acid	7664-38-2	< 15 %	NA	No
Methanol	67-56-1	< 5 %	NA	No

Hydrofluoric Acid

	<u>ppm</u>	<u>mg/m3</u>
OSHA PEL-TWA:	3 ppm	NA
OSHA PEL STEL:	NA	NA
OSHA PEL CEILING:	NA	NA
ACGIH TLV-TWA:	NA	NA
ACGIH TLV STEL:	NA	NA
ACGIH TLV CEILING:	NA	NA

Phosphoric Acid

	<u>ppm</u>	<u>mg/m3</u>
OSHA PEL-TWA:	NA	1 mg/m ³
OSHA PEL STEL:	NA	NA
OSHA PEL CEILING:	NA	NA
ACGIH TLV-TWA:	NA	1 mg/m ³
ACGIH TLV STEL:	NA	NA
ACGIH TLV CEILING:	NA	NA

Methanol

	<u>ppm</u>	<u>mg/m3</u>
OSHA PEL-TWA:	200 ppm	NA
OSHA PEL STEL:	NA	NA
OSHA PEL CEILING:	NA	NA
ACGIH TLV-TWA:	NA	NA
ACGIH TLV STEL:	NA	NA
ACGIH TLV CEILING:	NA	NA

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

ROUTE(S) OF ENTRY:

POTENTIAL HEALTH EFFECTS SHORT TERM/ACUTE EXPOSURE:

Eyes: Yes **Inhalation:** Yes **Skin:** Yes **Ingestion:** Unlikely

EYES: Causes severe burns. Effects may not be immediately apparent.

SKIN: Causes severe burns. Effects may not be immediately apparent.

INHALATION: Inhalation of mists will harm the respiratory tract.

INGESTION: Ingesting will burn tissue.

CHRONIC HEALTH HAZARDS: No further data known

CARCINOGENICITY: NTP: NO ARC Monographs: NO OSHA Regulated: NO

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known

SECTION 4: FIRST AID MEASURES

EYES: Flush with large amounts of running water for at least 15 minutes while holding upper and lower lids open. If irritation persists get medical attention immediately.

SKIN: Wash with large amounts of running water for at least 15 minutes. If irritation persists get medical attention.

INGESTION: Offer large quantities of water, Do not induce vomiting. Consult physician immediately for additional advice and treatment

INHALATION: Remove victim to fresh air, Administer oxygen, Seek Medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No further data known

SECTION 5: FIRE-FIGHTING MEASURES

FIRE AND EXPLOSIVE PROPERTIES:

FLAMMABLE LIMITS IN AIR, UPPER: None
(% BY VOLUME) **LOWER:** None

FLASH POINT:Closed Cup): None
FLAMMABLE LIMITS: None

AUTOIGNITION TEMPERATURE: None Known

NFPA HAZARD CLASSIFICATION

HEALTH: 4

FLAMMABILITY: 0

REACTIVITY: 1

OTHER: NA

HMIS HAZARD CLASSIFICATION

HEALTH: 4

FLAMMABILITY: 0

REACTIVITY: 1

PROTECTION: NA

EXTINGUISHING MEDIA: Use appropriate methods for combating surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Self contained breathing apparatus (SCBA) should be worn. Vapors are irritating.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

HAZARDOUS DECOMPOSITION PRODUCTS: Explosive hydrogen gas may be liberated from contact with some metals.

SECTION 6: ACCIDENTAL RELEASE MEASURES

CLEAN-UP MEASURES: Stop spill or leak if it can be done safely. Contain spill to smallest possible area. Large spills should be recovered for disposal. Neutralize spill with soda ash, lime or caustic soda. Then absorbed on sand or other absorbent. Transfer contaminated absorbent, soil and other materials to containers for disposal. Waste materials should be disposed of in accordance with all local, state and federal regulations.

SECTION 7: HANDLING AND STORAGE

HANDLING: As with any chemical, handle the product in a manner that minimizes exposure to practicable levels. Prior to handling, consult Section 8 of this MSDS to evaluate personal protective equipment needs.

Empty containers may contain product residue. All safety precautions taken when handling this product should also be taken when handling empty drums and containers. Keep containers closed when not in use.

STORAGE: Store in a cool, dry area away from combustibles and reactive chemicals. Store away from sources of ignition. Do not store at temperatures above 120 °F.

OTHER PRECAUTIONS: For Industrial & Institutional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Normal general ventilation is expected to be adequate. It is recommended that ventilation be designed in all instances to maintain airborne concentrations at lowest practicable levels. The user may wish to refer to 29 CFR 1910.1000(d)(2) and the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" (Appendix C) for the determination of exposure limits of mixtures. An industrial hygienist or similar professional may be consulted to confirm that the calculated exposure limits apply.

RESPIRATORY PROTECTION: NIOSH approved respirator in the absence of adequate ventilation..

EYE PROTECTION: Wear protective eyewear recommended by OSHA to prevent accidental exposure. Chemical goggles or full face shield recommended.

SKIN PROTECTION: Impervious clothing, rubber boots & rubber gloves .

OTHER PERSONAL PROTECTIVE EQUIPMENT: Selection of personal protective equipment should be based upon the anticipated exposure and made in accordance with OSHA's Personal Protective Equipment Standard found in 29 CFR 1910 Subpart I. The following information may be used to assist in PPE selection.

HYGIENIC PRACTICES: Wash hands after use. Keep containers closed when not in use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Colorless Liquid

ODOR: Odorless

PHYSICAL STATE: Liquid

pH AS SUPPLIED: 2.9 ± 3

BOILING POINT:	212 °F
MELTING POINT:	NA
FREEZING POINT:	NA
VAPOR PRESSURE (mmHg):	Same as water
VAPOR DENSITY (AIR = 1):	Same as water
SPECIFIC GRAVITY):	1.0 – 1.10
EVAPORATION RATE:	< 1.0 (Butyl Acetate = 1)
SOLUBILITY IN WATER:	100 %
PERCENT SOLIDS BY WEIGHT:	NA
PERCENT VOLATILE	NA
MOLECULAR WEIGHT:	Mixture
VISCOSITY:	NA

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is Stable

CONDITIONS TO AVOID (STABILITY): NA

INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizers and alkalis.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID (POLYMERIZATION): Will not polymerize

SECTION 11: TOXICOLOGICAL INFORMATION

EYE EFFECTS: No further toxicological data known.

SKIN EFFECTS: No further toxicological data known.

ORAL EFFECTS: No further toxicological data known.

INHALATION EFFECTS: No further toxicological data known.

OTHER: No further data known.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: This product has not been evaluated for ecotoxicity. As with any industrial chemical, exposure to the environment should be prevented and minimized wherever possible.

ENVIRONMENTAL FATE: Not Known.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Ensure that collection, transport, treatment, and disposal of waste product, containers and rinsate complies with all applicable laws and regulations. Note that use, mixture, processing, or contamination of the product may cause the material to be classified as a hazardous waste. It is the responsibility

of the product user or owner to determine at the time of disposal, whether the product is regulated as a hazardous waste.

RCRA HAZARD CLASS: U134, U154

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: Corrosive Liquids, Toxic, n.o.s. (Contains less than 6% Hydrofluoric Acid & Phosphoric Acid).
HAZARD CLASS: Class 8, 6.1
ID NUMBER: UN2922
PACKING GROUP: II
EXCEPTIONS: None
LABEL STATEMENT: Poison

WATER TRANSPORTATION Location B

AIR TRANSPORTATION Passenger: < 1 Liters Cargo: < 30 Liters

OTHER AGENCIES: Not Regulated

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

SARA 313: This product contains two of the substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CLEAN WATER ACT / OIL POLLUTION ACT: This product contains none of the chemicals subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act. Releases of the product into or leading to surface waters must be reported to the National Response Center at 1-800-424-8802.

CERCLA REPORTABLE QUANTITY: Any components listed below have been assigned a reportable quantity (RQ) by the Federal EPA. Release of the product into the environment that exceed the RQ for a particular component must be reported to the National Response Center at 1-800-424-8802.

COMPONENT:	Hydrofluoric Acid	100 lbs
	Phosphoric Acid	5000 lbs
	Methanol	5000 lbs

TOXIC SUBSTANCES CONTROL ACT: The components of this product are listed on the TSCA Inventory.

OZONE DEPLETING SUBSTANCES: This product contains no ozone depleting substances as defined by the Clean Air Act.

HAZARDOUS AIR POLLUTANTS: Any components listed below are defined by the Federal EPA as hazardous air pollutants.

COMPONENT: None

STATE REGULATIONS: Check with the appropriate state agency to determine whether regulations exists.

INTERNATIONAL REGULATIONS: NA

SECTION 16: OTHER INFORMATION

PREPARED BY: Department of Regulatory Compliance

DATE OF ISSUE: 10/11/07 **DATE OF LAST REVISION:** 3/28/06

We believe the information given is accurate. It is offered in good faith, but without guarantee. Since conditions are beyond our control, user assumes all responsibility and risk.