

MATERIAL SAFETY DATA SHEET

Prepared to U.S. Standards

1. PRODUCT IDENTIFICATION

CHEMICAL NAME; CLASS: TEMPILAQ- 400G

PRODUCT :	Temperature indicating product Tempilaq 400F(204C)
SUPPLIER/MANUFACTURER'S NAME:	TEMPIL INC.
ADDRESS:	2901 HAMILTON BLVD. SOUTH PLAINFIELD, NJ 07080
EMERGENCY PHONE:	CHEMTREC: 1-800-424-9300
BUSINESS PHONE:	1-908-757-8300

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME Hazardous	CAS #	%	EXPOSURE LIMITS IN AIR					
			ACGIH		OSHA			OTHER
			TLV ppm	STEL ppm	PEL ppm	STEL ppm	IDLH ppm	
Hydrocarbon,c8-c11	68553-14-0	10-15	NE	NA	NE	NA	NA	NA
Toluene	108-88-3	1-2	100ppm	NA	100ppm	NA	NA	NA
1,2 Butylene oxide	106-88-7	<0.6	NE	NE	NE	NE	NE	NA
Dimethoxymethane	109-87-5	1-5	1000ppm	NE	1000ppm	NE	NE	NA
n-Propyl bromide	106-94-5	50-60	NE	NE	NE	NE	NE	NA
t-Butanol	75-65-0	1-5	100ppm	NE	100ppm	NE	NE	NA

NA = Not Available, NE= Not Established

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Fumes are released in fire situations. Harmful if inhaled. Wear full protected equipment. Contain liquid to prevent contamination of soil , surface water or ground water..

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE: The most significant route of over-exposure for this product is by contact with the skin.

INHALATION: In high concentrations produces irritation to upper respiratory tract , vapors can cause unconsciousness .

CONTACT WITH THE SKIN AND EYES: May cause pain and slight eye irritation. Vapors may irritate eyes. Prolonged or repeated exposure may cause skin irritation. May cause drying or flaking of skin. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

INGESTION: may result in irritation of mouth and gastro-intestinal tract.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in Lay Terms.

Persons having pre-existing diseases of the lungs, eyes or skin may have increased susceptibility to the hazards of excessive exposure.

4. FIRST-AID MEASURES

SKIN EXPOSURE: If this product contaminates the skin, begin flushing with soap and water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Contaminated individual must seek medical attention if redness or irritation continues after area has been rinsed.

EYE EXPOSURE: If this product enters the eyes, open victim's eyes while under gently running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes.

INHALATION: Remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Remove or cover gross contamination to avoid exposure to rescuers. Call a physician and/or transport to emergency facility immediately.

4. FIRST-AID MEASURES (Continued)

INGESTION: If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION

Contaminated individual must be taken for medical attention if adverse effects occur. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to physician or other health professional with contaminated individual.

5. FIRE-FIGHTING MEASURES

FLASH POINT, (method): None (CC).

AUTOIGNITION TEMPERATURE: NA

FLAMMABLE LIMITS (in air by volume, %):

Lower (LFL): NE

Upper (UFL): NE

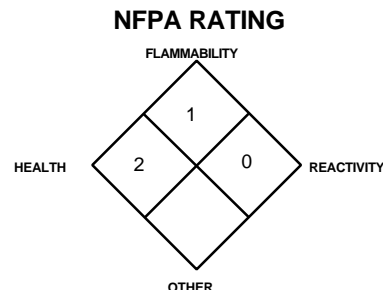
FIRE EXTINGUISHING MATERIALS:

Water fog: YES

Foam: YES

Carbon Dioxide: YES

Dry Chemical: YES



UNUSUAL FIRE AND EXPLOSION HAZARDS: Avoid contact with flames, sparks or high intensity sources. Liquid portion of product will decompose rapidly at temperature above 400 C releasing toxic fumes of carbon monoxide, carbon dioxide, hydrogen halide and toxic fumes of bromides.

SPECIAL FIRE-FIGHTING PROCEDURES: Keep people away . Isolate fire area and deny unnecessary entry. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Stay upwind. Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing. If possible, prevent run-off water from entering storm drains, bodies of water, or other environmentally sensitive areas.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Clear all personnel from area. Do not breathe vapors. Ventilate area of leak or spill. Do not breathe vapors. Ventilate area of leak or spill. Wear protective equipment including positive pressure self contained or air supplied breathing apparatus.

Contain liquid , prevent contamination of soil, surface water or ground water. Solvent material is heavier than water and has limited water solubility. It will collect on the lowest surface.

Contain liquid, transfer to properly labeled closed containers. Place all spill in a suitable container and seal. Dispose of in accordance with Federal, State and local hazardous waste disposal regulations (see Section 13, Disposal Considerations).

7. HANDLING and USE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Do not eat or drink while handling chemicals.

7. HANDLING and USE (Continued)

STORAGE AND HANDLING PRACTICES: All employees who handle this material should be trained to handle it safely. Avoid breathing material of this product. Packages of this product must be properly labeled. Store packages in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Inspect all incoming packages before storage, to ensure they are properly labeled and not damaged.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged-out safely. Decontaminate equipment using soapy water before maintenance begins. Collect all rinsates and dispose of according to applicable Federal, State, or local procedures.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Prudent practice is to ensure eyewash/safety shower stations are available near where this product is used. Provide local exhaust ventilation to control airborne levels below the exposure guidelines.

RESPIRATORY PROTECTION: Use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential concentration. Follow the requirements of the Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), or equivalent State standards.

EYE PROTECTION: Safety glasses.

HAND PROTECTION: Wear impervious gloves.

9. PHYSICAL and CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1): NA.

Odor: Irritating odor at high concentration.

SPECIFIC GRAVITY (water = 1): 1.22.

FREEZING/MELTING POINT: Not available.

SOLUBILITY IN WATER: about 2.4 gms/liter

BOILING POINT: Approx. 69C

VAPOR PRESSURE: Approx. 143 mm Hg @20C.

pH: NA.

COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.

APPEARANCE AND COLOR: Paint like liquid with solvent odor.

HOW TO DETECT THIS SUBSTANCE (warning properties): The appearance is a distinct property of this product.

10. STABILITY and REACTIVITY

STABILITY: Stable.

DECOMPOSITION PRODUCTS: None known.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Avoid contact with aluminum powders, Calcium and alkali metals, Avoid contact with strong bases and strong oxidizers.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid open flames, direct sunlight or ultraviolet sources.

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: The following toxicological data are available for the components of this product:

Hydrocarbon c8-11:

Has central nervous system effects.

May cause irregular pulse

Vapors may cause irritation of the eyes, nose, and respiratory tract.

Acute oral LD50 > 8ml/kg(rat)

Acute dermal LD50> 4ml/Kg(rat)

Acute inhalation LC50: 2745 PPM (4hr/rat)

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and reduce or eliminate exposure.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION

ENVIRONMENTAL STABILITY:

Sinks in water

Low bioaccumulation potential

Not readily biodegradable, but low atmospheric lifetime

Large volumes may penetrate soil and contaminate groundwater

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product if unaltered by use may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

14. TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Product not regulated
HAZARD CLASS NUMBER and DESCRIPTION: NA.
UN IDENTIFICATION NUMBER: NA
PACKING GROUP: NA.
DOT LABEL(S) REQUIRED: NA.

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (1996): NA.
MARINE POLLUTANT: NA.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: NA

15. REGULATORY INFORMATION

SARA REPORTING REQUIREMENTS: This product is subject to the reporting requirements of Sections 311, 312 and 313 of Title III of the Superfund Amendments and Reauthorization Act., as follows:

COMPONENT	SARA 311	SARA 312	SARA 313
Toluene	NA	NA	YES

SARA THRESHOLD PLANNING QUANTITY: NA.

TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.

CERCLA REPORTABLE QUANTITY (RQ): NA.

OTHER U.S. FEDERAL REGULATIONS: NA.

STATE REGULATORY INFORMATION: The components of this product are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: NA.

California - Permissible Exposure Limits for Chemical Contaminants: NA.

Florida - Substance List: NA.

Illinois - Toxic Substance List: NA.

Kansas - Section 302/313 List: NA.

Massachusetts - Substance List: NA.

Minnesota - List of Hazardous Substances: NA.

Missouri - Employer Information/Toxic Substance List: NA.

New Jersey - Right to Know Hazardous Substance List: NA.

North Dakota - List of Hazardous Chemicals, Reportable Quantities: NA.

Pennsylvania - Hazardous Substance List: NA.

Rhode Island - Hazardous Substance List: NA.

Texas - Hazardous Substance List: NA.

West Virginia - Hazardous Substance List: NA.

Wisconsin - Toxic and Hazardous Substances: NA.

16. OTHER INFORMATION

CAUTION! MAY BE HARMFUL IF INGESTED. CONTACT WITH SKIN MAY CAUSE IRRITATION. Do not taste or swallow. Avoid contact with skin. Use with adequate ventilation. Wash thoroughly after handling. Wear gloves and safety goggles when using this product. **FIRST-AID:** In case of contact, immediately flush skin or eyes with large amounts of water. If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **IN CASE OF FIRE:** Use fog, foam, dry chemical or CO₂. **IN CASE OF SPILL:** Pick-up material and rinse area with soap and water. Refer to MSDS for additional information.

PREPARED BY:

Tempil INC.
2901 Hamilton Boulevard, South Plainfield, NJ 07080
908/757/8300

This Material Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of Tempil's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this product is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.