



# Safety Data Sheet (TT-T-548F SOLVENT)

## 1 – PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** .....TT-T-548F SOLVENT  
**CHEMICAL NAME/**  
**CLASS/SYNONYMS:** .....Toluol, Tolu-Sol; Methylbenzene; Methacide; Phenylmethane;  
Methylbenzol  
**PRODUCT NUMBER:** .....TT-T-548F SOLVENT  
**UN/NA NUMBER:** .....1294  
**CHEMICAL FAMILY:** .....Petroleum Solvent  
**CAS NUMBER:** .....108-88-3  
**FORMULA:** .....C<sub>7</sub>H<sub>8</sub>  
**COMPANY:** .....JMN Specialties, Inc.  
1100 Victory Drive – Westwego, Louisiana USA 70094  
Phone (504) 341-3749, Fax (504) 341-5868  
[www.jmnspecialties.com](http://www.jmnspecialties.com)  
**EMERGENCY PHONE:** .....CALL CHEMTEL: Toll Free US & Canada: (800) 255-3924, Outside USA  
+01-813-248-0585.  
**DATE PREPARED:** .....September 10, 2019

## 2 – HAZARDS IDENTIFICATION

### GHS HAZARD CLASSIFICATION:

#### Physical Hazards

**Flammable Liquids:** ..... Category 2 - Highly flammable liquid and vapor

#### Health Hazards

**Acute Toxicity (Oral):** ..... Category 4 - Harmful if swallowed, in contact with skin, inhaled

**Skin Corrosion/Irritation:** ..... Category 2 - Causes skin irritation

**Serious Eye Damage/Irritation:** Category 2A - Causes eye irritation

**Aspiration Hazard:** ..... Category 1 - May be fatal if swallowed and enters airways

### WARNING LABEL ITEMS INCLUDING PRECAUTIONARY STATEMENTS:

#### Pictograms:



**SIGNAL WORD:** .....DANGER!

### GHS HAZARD AND PRECAUTIONARY STATEMENTS:

H225: Highly flammable liquid and vapor. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. H361: Suspected of damaging fertility or the unborn child. H373: May cause damage to organs through prolonged or repeated exposure.

P101+102+103: If medical advice is needed, have product container or label at hand. Keep out of the reach of children. Read label before use.



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P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P233: Keep container tightly closed. P240: Ground/bond container and receiving equipment. P241: Use explosion-proof electrical/ventilating/lighting equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P260: Do not breathe gas/mist/vapors/spray. P264: Wash hands thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P280: Wear protective gloves/protective clothing/eye protection/face protection. P281: Use personal protective equipment as required. P235: Keep cool.

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P302+352: IF ON SKIN: Wash with plenty of soap and water. P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+313: IF exposed or concerned: Get medical attention/advice. P312: Call a POISON CENTER or doctor/physician if you feel unwell. P314: Get medical attention/advice if you feel unwell. P321: Specific treatment see label. P331: Do NOT induce vomiting. P332+313: If skin irritation occurs, get medical advice/attention. P337+313: If eye irritation persists, get medical advice/attention. P362: Take off contaminated clothing and wash before reuse. P370+378: In case of fire, use dry chemical powder to extinguish.

P403+233: Store container tightly closed in well-ventilated place. P405: Store locked up. P501: Dispose of contents/container according to local, state and federal regulations.

TOTAL VOC's: .....7.20 pounds per gallon

### 3 – COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	PERCENT	CAS NUMBER
Toluene	> 99.0	108-88-3

### 4 – FIRST-AID MEASURES

**BREATHING (INHALATION):** Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial resuscitation. Keep person warm and at rest. Treat symptomatically and supportively. Seek medical attention immediately. Qualified medical personnel should consider administering oxygen.

**SWALLOWING (INGESTION):** Give large amounts of fresh water or milk immediately. Do not give anything by mouth if person is unconscious or otherwise unable to swallow. If vomiting occurs, keep head below hips to prevent aspiration. Treat symptomatically and supportively. Seek medical attention immediately.

**EYES:** ..... Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

**SKIN (DERMAL):** ..... Remove contaminated clothing and wash affected skin with soap and water. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop.



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**NOTE TO PHYSICIAN:** .....All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Material, if aspirated into the lungs, may cause chemical pneumonitis. Skin contact may aggravate an existing dermatitis. Treat appropriately.

### 5 – FIRE-FIGHTING MEASURES

**GENERAL FIRE HAZARDS:** .....Flammable liquid and vapor

**AUTOIGNITION TEMP:** .....995°F (535°C)

**EXTINGUISHING MEDIA:** .....Determined by surrounding material. In case of fire, use water fog, dry chemical, CO<sub>2</sub>, or "alcohol" foam. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

#### **SPECIAL FIRE FIGHTING**

**PROCEDURES:** .....Spilled product on ground may be slippery.

#### **UNUSUAL FIRE AND**

**EXPLOSION HAZARDS:** .....Containers may explode from internal pressure if confined to fire. Cool with water spray. Vapor accumulation could flash or explode if in contact with an open flame.

### 6 – ACCIDENTAL RELEASE MEASURES

**SPILL PROCEDURES:** .....Wear appropriate personal protective equipment before approaching spill site. For small spills, dilute with water to sewer if allowed by local and state regulations. If unable to wash product with water, absorb with inert material (sand or other approved material) and dispose of in accordance with applicable regulations.

**WASTE DISPOSAL:** .....Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**RCRA STATUS:** .....If discarded in its purchased form, this product is considered a RCRA hazardous waste. It is the responsibility of the product user to determine at the time of disposal, whether a material containing the product should be classified as a hazardous waste. (40CFR261.20-24).



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### 7 – HANDLING and STORAGE

#### STORAGE:

Keep in a tightly closed container, stored in a cool, dry, ventilated area below 44°C (110°F). Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product. Drum must not be washed out or used for other purposes.

**HANDLING:** ..... Avoid contact with eyes, skin and clothing. Do not inhale vapors and fumes. Wash thoroughly after handling. Use only with adequate ventilation. Do not take internally. For industrial use only.

### 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

#### OCCUPATIONAL EXPOSURE LIMITS

##### HAZARDOUS INGREDIENT

Toluene

##### PEL

150 ppm

##### TLV-TWA

50 ppm



#### EXPOSURE CONTROLS:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**RESPIRATORY PROTECTION:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information. Self-Contained Breathing Apparatus may be required for use in confined or enclosed spaces.

#### PROTECTIVE CLOTHING:

**Eye/face protection:** Wear chemical goggles; face shield (if splashing is possible). **Skin protection:** Chemical resistant, impermeable gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron or chemical suit and chemical resistant boots are recommended.



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**ADDITIONAL MEASURES:** Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Safety shower and eye wash should be available close to work areas.

### 9 – PHYSICAL / CHEMICAL PROPERTIES

**BOILING POINT:**.....197.85°F (92.14°C)  
**FREEZING POINT:** .....32°F  
**FLASHPOINT:**.....48°F (9°C)  
**UPPER FLAME LIMIT (%)** :.....7.1%  
**LOWER FLAME LIMIT (%)** : .....1.2%  
**VAPOR PRESSURE:** .....ND  
**VAPOR DENSITY (AIR=1):** .....4  
**SPECIFIC GRAVITY:** .....0.8636  
**pH:** .....NA  
**SOLUBILITY IN WATER:**.....Negligible  
**VOLATILITY**  
**INCLUDING WATER:** .....7.20 pounds per gallon  
**MOLECULAR WEIGHT:** .....92.14 g/mol  
**EVAPORATION RATE:**.....6.1  
**PHYSICAL STATE:**.....Liquid  
**COLOR:** .....Clear  
**ODOR:**.....Aromatic solvent

### 10 – STABILITY and REACTIVITY

**STABILITY:** .....Stable  
**HAZARDOUS DECOMP.:** .....Will not occur  
**INCOMPATIBILITY:**.....Oxidizers or Oxidizing Materials.  
**HAZARDOUS REACTIONS:** Not expected to be Explosive, Self-Reactive, Self-Heating, or an Organic Peroxide under US GHS Definition(s).

### 11 – TOXICOLOGICAL INFORMATION

**Cancer:** Research shows that toluene is unlikely to cause cancer. **Reproductive Effects:** There are no indications toluene causes damage to reproductive organs. Toluene may affect the development of unborn babies. **Organ Systems:** Damage to the brain, liver, bone marrow and kidneys can occur.

**THRESHOLD LIMIT VALUE:** .....50 ppm  
**OSHA PEL:**.....150 ppm  
**LISTED CARCINOGEN:**.....Toluene: No carcinogenic effects were observed when toluene was applied to the skin of mice for two years. A 2 year NTP inhalation study (rodents) at levels up to 1200 ppm toluene was negative. Prolonged or repeated exposure to toluene does not result in bone marrow injury or blood changes characteristic of benzene.

**MEDICAL CONDITION AGGRAVATED:** Existing dermatitis.



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### INFORMATION ON ACUTE TOXICOLOGICAL EFFECTS

#### ORAL

**Product:**.....Toluene: (Rats): LD50: > 7 000 mg/kg. Considered to be practically non-toxic based on single dose level testing at 7000 mg/kg. Warning Hazard category 5. Practically non-toxic, but when swallowed can cause lung damage.

#### DERMAL

**Product:**.....Toluene: (Rats): LD50: > 7 000 mg/kg. Considered to be practically non-toxic based on single dose level testing at 7000 mg/kg. Warning Hazard category 5. Practically non-toxic, but when swallowed can cause lung damage.

#### INHALATION

**Product:**.....Toluene: (Rats): Harmful (LC50: greater than 10 but less than 20mg/l) 4 hours. Based on testing of similar products and/or the components. Warning Hazard category 4. Harmful if inhaled.

#### REPEATED DOSE TOXICITY

**Product:**.....Toluene: (Rats): Application Route: Inhalation Dose: 0, 100, 625, 1250, 3000 ppm. Exposure time: 15 weeks. Number of exposures: 6.5 h/d, 5 day/week: NOEL: 625 ppm.

#### SKIN CORROSION / IRRITATION

**Product:**.....Repeated and prolonged exposure to concentrated material may cause dermatitis.

#### SERIOUS EYE DAMAGE / IRRITATION

**Product:**.....Toluene: (Rabbits): Practically non-irritating. Eye irritation scores: 12.0 at 24 hours, 18.0 at 48 hours, 18.0 at 72 hours, 16.0 at 4 days, 9.0 at 7 days. Warning Hazard category 2B. May cause mild eye irritation.

#### RESPIRATORY OR SKIN SENSITIZATION

**Product:**.....Not expected to be sensitizing based on tests of this product, components, or similar products.

#### MUTAGENICITY

##### IN VITRO

**Product:**.....No Data Available

##### IN VIVO

**Product:**.....No Data Available

#### Specified Substance(s)

#### Information as provided by manufacturer

Toluene

No Data Available

#### CARCINOGENICITY

**Product:**.....Based on available data, the classification criteria are not met. IARC 3: Not Classifiable as to Carcinogenicity in Humans. ACGIH A4 - Not Classifiable as a Human Carcinogen.

#### REPRODUCTIVE TOXICITY

**Product:**.....The NOEL for toluene was 500 ppm. Levels greater than 1500 ppm may adversely affect fetal development. Warning Hazard category 2.



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### SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE

**Product:** **GENERAL:** Solvent vapors may be irritating to skin and eyes. **INHALATION:** High concentrations of vapor may cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, possibly with chest pain and coughing. **NOTICE:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal. **EYES:** May cause mild to severe irritation experienced as discomfort or pain, excess blinking and tear production, possibly with marked redness and swelling of the conjunctiva. **SKIN:** Brief contact may cause slight irritation with itching and local redness. Prolonged contact may cause more severe irritation, with discomfort or pain. **SWALLOWING:** May cause headache, dizziness, nausea, vomiting, diarrhea, coma, and death.

### SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE

**Product:**.....The effects of long-term, low-level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the avoidance of all effects from repetitive acute exposure. This product may aggravate existing eye, skin, and respiratory conditions.

### ASPIRATION HAZARD

**Product:**.....Droplets of the product aspirated into the lungs through ingestion or vomiting may cause chemical pneumonia.

### OTHER ADVERSE EFFECTS

**Product:**.....There is no information available at this time for this product. Studies have shown that bacteria and fungi have the ability to degrade ingredients in this product thereby decreasing their toxicity to fish. However, a spill may produce significant toxicity to aquatic organisms and ecosystems.

## 12 – ECOLOGICAL INFORMATION

### ACUTE TOXICITY

#### FISH

**Product:**.....(Salmon) LC/EC50: 8.1 mg/l at 96 hours.

#### AQUATIC INVERTEBRATES

**Product:**.....(Daphnia magna) LC/EC50: 6 mg/l at 48 hours.

### CHRONIC TOXICITY

#### FISH

**Product:**.....Not determined. Keep product out of sewers and waterways.

#### AQUATIC INVERTEBRATES

**Product:**.....Not determined. Keep product out of sewers and waterways.

#### TOXICITY TO AQUATIC PLANTS

**Product:**.....(Green algae) LC/EC50: 9.4 mg/l at 8 hours.

### PERSISTENCE AND DEGRADABILITY

#### BIODEGRADATION

**Product:**.....Readily Biodegradable.

#### BIOLOGICAL OXYGEN DEMAND

**Product:**.....No data available

#### CHEMICAL OXYGEN DEMAND

**Product:**.....No data available

#### BOD / COD RATIO

**Product:**.....No data available



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### BIOACCUMULATIVE POTENTIAL

**Product:**.....Bioconcentration factor (BCF) < 100.

### MOBILITY IN SOIL

**Product:**.....Water solubility: 500 mg/l @ 20 C.

### RESULTS OF PBT AND mPvB ASSESSMENT

**Product:**.....Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria. Not fulfilling vPvB (very persistent, very bioaccumulative) criteria.

### OTHER ADVERSE EFFECTS

**Product:** .....No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

## 13 –DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:**.....Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility solely of the generator. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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## 14 – TRANSPORTATION INFORMATION

*Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.*



**UN/NA NUMBER:**.....1294

**PROPER SHIPPING NAME:**.....Toluene

**HAZARD CLASS:**.....3

**PACKAGING GROUP :**.....II

**LETTER:**.....F (Highly flammable)

**ENVIRONMENTAL HAZARD:** .....Because of modern treatment methods or method of use of this product, only an insignificant amount of the ingredients reaches the environment. That amount is at such levels as to typically not cause any adverse effects.

**REPORTABLE QUANTITY:**.....Toluene: CAS # 108.88-3; 1000 Lbs. (453.60 Kilograms).



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### 15 - REGULATIONS

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System. This SDS complies with 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD). **IMPORTANT:** Read this SDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

#### EPA SRA Title III Chemical Listings:

**TSCA STATUS:**.....This product is listed on the TSCA inventory. If this product is a blend, all ingredients in the product are listed on the TSCA Inventory List.  
Any impurities present in this product are exempt from listing.

**SECTION 302:**.....1000 pounds (453.60 kilograms)

**SECTION 304:**.....1000 pounds (453.60 kilograms)

**SECTION 312:**.....Yes

**SARA SECTION 313:** .....Toluene: CAS # 108-88-3; 1000 Lbs. (453.60 Kilograms).

**ACUTE:**.....Yes

**CHRONIC:**.....Yes

**FIRE:** .....Yes

**PRESSURE:** ..... No

**REACTIVE:**.....No

**CLEAN WATER ACT:** .....None

#### **IMDG – International Marine Dangerous Goods Code**

UN1224, Toluene, 3, F, PGII. EmS F-E, S-D. Marine Pollutant. No. Static Accumulator: Yes.

#### **IATA**

UN1224, Toluene, 3, F, PGII.

**DEA Chemical Trafficking Act:**.....U.S. Drug Enforcement Administration Chemical Diversion and Trafficking Act: Sales, receipts, movements or unexplained losses of this chemical may require recordkeeping and reporting in accordance with 21 CFR 1310/1313.



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### 16 – OTHER INFORMATION

#### HMIS\*

HEALTH		3
FLAMMABILITY		2
REACTIVITY		0
PERSONAL PROTECTION		H

*\*HMIS®HAZARD INDEX: 0=Minimal Hazard, 1=Slight Hazard, 2=Moderate Hazard, 3=Serious Hazard, 4=Severe Hazard. HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this SDS and product label must be considered.*

ND = No Data, NA = Not Applicable/Not Available, ≤ = Less than or equal to, ≥ = Greater than or equal to

**REVISION STATEMENT:** Changes have been made throughout this Safety Data Sheet (SDS). Please read the entire document. Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) by the Company Health and Risk Assessment Unit.

#### **DISCLAIMER:**

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, the Company makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving this Safety Data Sheet (SDS) will make their own determination as to its suitability for their intended purposes prior to use. Since the product is within the exclusive control of the user, it is the user's obligation to determine the conditions of safe use of this product. Such conditions should comply with all Federal and State Regulations concerning the Product. It must be recognized that the physical and chemical properties of any product may not be fully understood and that new, possibly hazardous products may arise from reactions between chemicals. The information given in this data sheet is based on our present knowledge and shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. **NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.**

**\*\*\*This is the last page of this SDS\*\*\***