Safety Data Sheet
(FED O-T-634 TYPE 2)

1 – PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: .....FED O-T-634 TYPE 2
CHEMICAL NAME/
CLASS/SYNONYMS: .....Electro Clean 2, ASTM D4080 SOLVENT, Trichloroethylene
PRODUCT NUMBER:.....FED O-T-634 TYPE 2
UN/NA NUMBER:.....1710
CHEMICAL FAMILY: .....Chlorinated solvent
CAS NUMBER:.....79-01-6
FORMULA:.....C_2HCl_3

COMPANY: .....**JMN Specialties, Inc.**
1100 Victory Drive – Westwego, Louisiana USA 70094
Phone (504) 341-3749, Fax (504) 341-5868
www.jmnspecialties.com
EMERGENCY PHONE: .....CALL CHEMTEL: Toll Free US & Canada: (800) 255-3924, Outside USA +01-813-248-0585.
DATE PREPARED: .....January 18, 2021

2 – HAZARDS IDENTIFICATION

GHS HAZARD CLASSIFICATION:

Physical Hazards
Flammable Liquids:.....No Hazard Statement established for this Product
Corrosive Liquids: .....No Hazard Statement established for this Product
Health Hazards
Acute Toxicity (Oral):.....Category 4 - Harmful if swallowed, in contact with skin, inhaled
Skin Corrosion/Irritation:.....Catagory 2 - Causes skin irritation
Eye Damage/Irritation: .....Catagory 2A - Causes eye irritation
Aspiration Hazard:.....Catagory 1 - May be fatal if swallowed and enters airways
Carcinogen: .....Category 1B - Presumed human carcinogens largly based on well performed animal studies.
See Section 11 for additional Toxicological information

EMERGENCY OVERVIEW:

Pictograms:

Signal Word (GHS-US): .....DANGER!

Hazard Statements:

Physical Hazards (GHS-US):

No Hazard Statement established for this Product

Health Hazards (GHS-US):

H303 May be harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H341 Suspected of causing genetic defects. H350 May cause cancer. H371 May cause damage to organs.

Environmental Hazards (GHS-US):

H412: Harmful to aquatic life with long lasting effects

Precautionary Statements (GHS-US):

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.

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. P260 Do not breathe dust/fume/ gas/ mist/ vapors/ spray. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/ eye protection/ face protection. P281 Use personal protective equipment as required.

P233+P403+P405: Keep container tightly closed. Store in a well ventilated place. Store locked up.

Response Statements (GHS-US):

P301+P310+P330+P331: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth. Do NOT induce vomiting. P303+P310+P361+P353: IF ON SKIN (or hair): Gently wash with plenty of soap and water. Remove / Take off immediately all contaminated clothing. P332+P313: If skin irritation occurs: Get medical advice / attention. P304+P340+P312: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. P305+P351+P338+337+P313: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists get medical advice/attention. P362+P363 Take off contaminated clothing. Wash contaminated clothing before reuse.

P501: Dispose of contents/container: Treatment, storage, transportation and disposal must be in accordance with Federal, State/Provincial and Local Regulations, and product characteristics at time of disposal.

TOTAL VOC's:.....12.20 pounds per gallon

3 – COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	PERCENT*	CAS NUMBER
Trichloroethylene	100	79-01-6

*Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

NOTE TO PHYSICIAN: ..... The hazards of this material are due mainly to its severely irritant properties on skin and mucosal surfaces. Signs and Symptoms of Exposure: burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Exposure to and/or consumption of alcohol may increase toxic effects., Gastrointestinal disturbance, kidney injury may occur, narcosis. 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.

5 – FIRE-FIGHTING MEASURES

GENERAL FIRE HAZARDS: ..... Not Flammable

AUTOIGNITION TEMP:…… 770°F (410°C)

EXTINGUISHING MEDIA:…… Determined by surrounding material. In case of fire, use water fog, dry chemical, CO_2, 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.

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).

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.

Safety Data Sheet
(FED O-T-634 TYPE 2)

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS

HAZARDOUS INGREDIENT	PEL	TLV-TWA
Trichloroethylene	10 ppm	10 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.

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.

ADDITONAL 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 PROPERITES

BOILING POINT:…… 188.1°F (86.7°C)
FREEZING POINT:…… - 120.6°F (-84.8°C)
FLASHPOINT: ..... Non-flammable material
UPPER FLAME LIMIT (%):.....NA
LOWER FLAME LIMIT (%):.....NA
VAPOR PRESSURE: .....ND
VAPOR DENSITY (AIR=1):.....> 1
SPECIFIC GRAVITY: .....1.46 - 1.47
pH: .....NA
SOLUBILITY IN WATER:..... Not soluble
VOLATILITY
INCLUDING WATER: .....12.20 pounds per gallon
MOLECULAR WEIGHT:.....131.36
EVAPORATION RATE: No data available
PHYSICAL STATE:..... Liquid
COLOR: ..... Clear
ODOR: ..... Sharp 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

THRESHOLD LIMIT VALUE:.....10 ppm
OSHA PEL:.....10 ppm
LISTED CARCINOGEN:……IARC: 2A - Group 2A: Probably carcinogenic to humans (Trichloroethylene), NTP: Reasonably anticipated to be a human carcinogen (Trichloroethylene).
MEDICAL CONDITION AGGRAVATED:……Current available data does not indicate that there are medical conditions that are generally recognized as being aggrevated by exposure to this substance/product. Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Respiratory system. Eyes. Skin.

INFORMATION ON ACUTE TOXICOLOGICAL EFFECTS

ORAL

Product: ..... If ingested call a POISON CENTER or doctor/physician immedately.

DERMAL

Product: ..... Prolonged or repeated skin contact may cause mild to severe irritation. Skin contact may aggravate existing dermatitis.

INHALATION

Product: ..... Inhalation may cause severe irritation, coughing. Prolonged or repeated overexposure by inhalation may cause headache, nausea, drowsiness.

REPEATED DOSE TOXICITY

Product: ..... No Data Available

SKIN CORROSION / IRRITATION

Product: ..... Repeated and prolonged exposure to concentrated material may cause dermatitis and possible allergic skin reaction.

SERIOUS EYE DAMAGE / IRRITATION

Product: ..... Eye contact with product may cause mild to severe irritation, possible chemical burns, or eye damage.

RESPIRATORY OR SKIN SENSITIZATION

Product: ..... May cause an allergic skin reaction.

MUTAGENCITY

IN VITRO

Product: ..... No Data Available

IN VIVO

Product: ..... No Data Available

Specified Substance(s)	**Information as provided by manufacturer**
Trichloroethylene	No Data Available

CARCINOGENICITY

Product: ..... This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Probable human carcinogen.

REPODUCTIVE TOXICITY

Product: ..... Trichloroethylene is carcinogenic to humans by all routes of exposure and poses a potential human health hazard for noncancer toxicity to the central nervous system, kidney, liver, immune system, male reproductive system, and the developing embryo/fetus.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE

Product:…….. INHALATION: High concentrations of vapor may cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, with chest pain and coughing. Headache, nausea, vomiting, dizziness, and drowsiness may occur. **EYES:** Causes severe irritation experienced as discomfort or pain, excess blinking and tear production, with marked excess 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:** Poison, toxic. May cause headache, dizziness, incorrdination, nausea, vomiting, diarrhea, and general weakness. **MAY BE FATAL IF SWALLOWED.**

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: ..... Overexposures have been known to produce liver damage in animal studies. Fetotoxicity and embryotoxicity in the presence of maternal toxicity has been shown to occur in rabbits at a high doses.

12 – ECOLOGICAL INFORMATION

ACUTE TOXICITY

FISH

Product: .....LC50 - Pimephales promelas (fathead minnow) - 41 mg/l - 96.0 h, LOEC - other fish - 11 mg/l - 10.0 d, NOEC - Oryzias latipes - 40 mg/l - 10.0 d.

AQUATIC INVERTEBRATES

Product: .....EC50 - Daphnia magna (Water flea) - 18.00 mg/l - 48 h.

CHRONIC TOXICITY

FISH

Product: ..... This material has exhibited moderate toxicity to aquatic organisms.

AQUATIC INVERTEBRATES

Product: ..... This material has exhibited moderate toxicity to aquatic organisms.

TOXICITY TO AQUATIC PLANTS

Product: .....IC50 - Pseudokirchneriella subcapitata (green algae) 175.00 mg/l 96 h.

PERSISTENCE AND DEGRADABILITY

BIODEGRADATION

Product: ..... No data available

BIOLOGICAL OXYGEN DEMAND

Product: ..... No data available

CHEMICAL OXYGEN DEMAND

Product: ..... No data available

BOD / COD RATIO

Product: ..... No data available

BIOACCUMULATIVE POTENTIAL

Product: ..... Because trichloroethylene evaporates easily, if it is released to the environment during production and use, most of it eventually reaches the air. Trichloroethylene that reaches groundwater may be difficult to remediate. Trichloroethylene is moderately toxic to aquatic organisms and does not bioaccumulate.

MOBILITY IN SOIL

Product: .....NOT expected to partition to water.

RESULTS OF PBT AND mPvB ASSESSMENT

Product: ..... No data available.

OTHER ADVERSE EFFECTS

Product: ..... An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

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.

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).

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:.....1710
PROPER SHIPPING NAME:..... Trichloroethylene
HAZARD CLASS:.....6.1
PACKAGING GROUP : III
LETTER:.....T (Toxic)
ENVIRONMENTAL HAZARD: ..... For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters. The potential mobility of trichloroethylene in the soil is high. Very little trichloroethylene breaks down in soil, and it can pass through the soil into underground water. It does not bioaccumulate.
REPORTABLE QUANTITY:..... Trichloroethylene: 100 Lbs. (45.36 Kilograms).

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:..... None
SECTION 304:..... None
SECTION 312:..... Trichloroethylene: CAS # 79-01-6; 100 Lbs. (45.36 Kilograms).
SARA SECTION 313:..... Trichloroethylene: CAS # 79-01-6; 100 Lbs. (45.36 Kilograms). Threshold Planning Quantity (TPQ)
ACUTE: ..... Yes (Eyes)
CHRONIC: ..... Yes
FIRE: ..... No

PRESSURE: ..... No
REACTIVE:..... No
CLEAN WATER ACT:..... Yes

IMDG – International Marine Dangerous Goods Code
UN1710, TRICHLOROETHYLENE, 6.1, PG III. EMS-No: F-A, S-A, Marine pollutant: No
IATA
UN1710, TRICHLOROETHYLENE, 6.1, PG III.

DEA Chemical Trafficking Act: .. No
Homeland Security Regulated .. This product does not contain any reportable DHS chemicals.

California Proposition 65..... This product contains the following Proposition 65 chemicals:
Component..... Trichloroethylene CAS# 79-01-6
Cal Prop 65…… Contains ingredients Known/Likely, to be Carcinogenic to humans by the state of California
Cal Prop 65 NSRL..... No Significant Risk Level
Category…… Contains ingredients Known/Likely, to be Carcinogenic to humans by the state of California

US State Right to Know (RTK)
Component..... Trichloroethylene CAS# 79-01-6
Massachusetts ..... Yes **
New Jersey ..... Yes **
Pennsylvania ..... Yes **
Illinois ..... Yes **
Rhode Island..... Yes **

****RTK Chemical(s) .....**Trichloroethylene CAS# 79-01-6

Canada NPRI ..... Trichloroethylene CAS# 79-01-6

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): All ingredients in this product are listed on the DSL. Any impurities present in this product are exempt from listing.
AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): All ingredients in this product are listed on AICS or otherwise complies with NICNAS.
MITI (Japanese Handbook of Existing and New Chemical Substances): All ingredients in this product are listed in the Handbook or has been approved in Japan by new substance notification.
ECL (Korean Toxic Substances Control Act): All ingredients in this product are listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-04134
Philippines Inventory (PICCS): All ingredients in this product are listed on the Philippine Inventory or otherwise complies with PICCS.

Inventory of Existing Chemical Substances in China: All ingredients in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

16 – OTHER INFORMATION

HMIS*

HEALTH	2
FLAMMABILITY	0
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*****