

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 2-1 Formula

OTHER MEANS OF IDENTIFICATION: Not applicable.

GENERAL USE: For professional drycleaning use only.

PRODUCT DESCRIPTION: Stain Removal Agent

MANUFACTURER

R. R. Street & Co. Inc.

215 Shuman Boulevard/Suite 403

Naperville, IL 60563

Product Information: 800-323-7206 (USA
& Canada only) or 630-416-4244

24 HR. EMERGENCY TELEPHONE NUMBERS

Medical Emergency: 866-303-6947 (USA & Canada
only) or 651-632-9272

Transportation Emergency: 800-424-9300 (USA &
Canada only) or 703-527-3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Skin Corrosion/Irritation: Category 2

Eye Damage/Irritation: Category 1

Specific Target Organ Toxicity (STOT-SE) Narcotic Effects: Category 3

Germ Cell Mutagenicity: Category 2

Carcinogenicity: Category 1A

GHS LABEL ELEMENTS

Symbol(s):



Signal Word: Danger

Hazard Statements:

H315 – Causes skin irritation.

H318 – Causes serious eye damage.

H336 – May cause drowsiness or dizziness.

H341 – Suspected of causing genetic defects.

H350 – May cause cancer.

Precautionary Statements:

P201– Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

P261 – Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264 – Wash skin thoroughly after handling.

P271– Use only outdoors or in a well-ventilated area.
 P280 – Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 – IF ON SKIN: Wash with plenty of soap and water.
 P304+P340+P312 – IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
 P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P305+P310 – IF IN EYES: Immediately call a POISON CENTER or doctor/physician.
 P308+P313 – IF exposed or concerned: Get medical advice/ attention.
 P312 – Call a POISON CENTER/doctor/physician if you feel unwell.
 P332+P313 – If skin irritation occurs: Get medical advice/ attention.
 P337+P313 – If eye irritation persists: Get medical advice/ attention.
 P362+P364 – Take off contaminated clothing and wash before reuse.
 P403+P233 – Store in a well-ventilated place. Keep container tightly closed.
 P501– Dispose of contents and container to licensed, permitted incinerator, or other thermal destruction device.

Other Hazards: Not available.

Unknown Acute Toxicity: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS</u>
Trichloroethylene	<50	79-01-6
Trade Secret #1	-	-
Trade Secret #2	-	-
Trade Secret #3	-	-
Trade Secret #4	-	-

Comments: None.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: Remove contaminated clothing. Wash with water. Consult a physician if irritation persists.

INGESTION: Get immediate medical attention. Do not induce vomiting unless instructed to do so by poison center or physician.

INHALATION: Remove affected person to fresh air. If not breathing, give artificial respiration. Get medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Discomfort, redness, tearing, blurred vision, and pain.

SKIN: Pain, redness, burning sensation, blisters, drying, and dermatitis.

SKIN ABSORPTION: May cause irritation and dermatitis with prolonged contact.

INGESTION: May result in irritation to mouth and GI tract, Vomiting and subsequent aspiration into lungs could possibly lead to pneumonia or pulmonary edema. May cause dizziness and central nervous system effects.

INHALATION: Central nervous system depressant. Inhalation can cause irritation of the respiratory tract, dizziness, nausea, headache, loss of coordination and equilibrium, unconsciousness and even death in confined or poorly ventilated areas.

ADDITIONAL INFORMATION: After emergency actions, call the emergency medical information number on page 1 or a physician immediately.

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Not applicable.

EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam, water spray or fog.

HAZARDOUS COMBUSTION PRODUCTS: Hydrogen chloride, phosgene.

OTHER CONSIDERATIONS: Concentrated vapor can be ignited by high-intensity ignition source.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Clean up spill with absorbent material and water, if necessary.

LARGE SPILL: Contain spill. Avoid breathing vapor. Clean up spills immediately with absorbent material, observing precautions in the Exposure Controls/Personal Protection section (see section 8). Place absorbed material in closed containers for disposal (see section 13). Do not flush to sewer. Avoid contamination of ground and surface waters.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Not applicable.

HANDLING: Follow all SDS/label precautions even after container is emptied because it may retain product residues.

STORAGE: Store in labeled, tightly sealed containers in a cool, dry, well-ventilated area.

ELECTROSTATIC ACCUMULATION HAZARD: Not applicable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

	<u>EXPOSURE LIMITS</u>						
		<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>Supplier OEL</u>	
		<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>	<u>ppm</u>	<u>mg/m³</u>
Trichloroethylene	TWA	100		10 ^[1]			
	STEL	200 ^[2]		25			
Trade Secret #1	TWA	NE ^[3]		NE			
	STEL	NE		C 25			
Trade Secret #2	TWA	NE		NE			
	STEL	NE		NE			
Trade Secret #3	TWA	NE		NE			
	STEL	NE		NE			
Trade Secret #4	TWA	NE		NE			
	STEL	NE		NE			

TABLE FOOTNOTES

1. A2: Suspected human carcinogen.

2. Ceiling concentration. A 300 ppm peak concentration is allowed for 5 minutes in any 2-hour period.

3. NE=Not Established.

ENGINEERING CONTROLS: Not applicable.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses with side shields, or goggles.

SKIN: Neoprene or Barrier™ gloves.

RESPIRATORY: NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

PROTECTIVE CLOTHING: Where contact is likely, wear the appropriate chemical resistant equipment, which depending on circumstances may include gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

WORK HYGIENIC PRACTICES: Wash thoroughly after handling. Do not eat or drink in work area.

OTHER USE PRECAUTIONS: Have eye wash station available. Do not wear contact lenses without eye protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear to slightly cloudy.

PHYSICAL STATE: Liquid.

COLOR: Colorless.

ODOR: Ethereal.

ODOR THRESHOLD: 20 ppm

pH: 7

FREEZING POINT: <0°C (32°F)

INITIAL BOILING POINT: 71°C (159°F)

FLASHPOINT: No data available.

EVAPORATION RATE: 4.5 (butyl acetate = 1)

FLAMMABILITY (Solid, Gas): Not applicable, this product is a liquid at room temperature.

FLAMMABLE LIMITS: 8.0 to 12.5%

VAPOR PRESSURE: 58 mm Hg at 20°C

VAPOR DENSITY: 4.5 (air = 1)

RELATIVE DENSITY: 1.15

SOLUBILITY IN WATER: Dispersible.

PARTITION COEFFICIENT (Log K_{ow}): No data available.

AUTOIGNITION TEMPERATURE: No data available.

DECOMPOSITION TEMPERATURE: No data available.

VISCOSITY: No data available.

PERCENT VOLATILE: No data available.

10. STABILITY AND REACTIVITY

REACTIVITY: No.

CHEMICAL STABILITY: Stable.

POSSIBILITY OF HAZARDOUS REACTIONS: Polymerization will not occur.

CONDITIONS TO AVOID: Contact with open flame, electric arcs, other hot surfaces that can cause thermal decomposition. May separate into two layers if temperature falls below 60 F; if so, allow to warm then shake to remix.

INCOMPATIBLE MATERIALS: Strong alkalis, oxidizers, sodium, potassium, lithium, aluminum, barium, magnesium, titanium.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, phosgene, and chlorine.

11. TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE: Inhalation and skin.

ACUTE TOXICITY (ATE):

DERMAL LD₅₀: > 20,000 mg/kg (rabbit)

ORAL LD₅₀: > 2,000mg/kg (rat)

INHALATION LD₅₀: Insufficient data available.

CHRONIC

TARGET ORGANS: Overexposure can lead to kidney and liver damage. May cause central nervous system effects.

SENSITIZATION: Insufficient data available.

CARCINOGENICITY

IARC: This product is classified as Group 1 (Carcinogenic to humans).

NTP: This product is reasonably anticipated to be a human carcinogen.

OSHA: Not listed as a carcinogen.

OTHER: ACGIH: A2 – Limited epidemiology data have shown a weak association between trichloroethylene exposure and renal cancer.

OTHER: No data available.

REPRODUCTIVE EFFECTS: Components of this product cause fetotoxicity in animals at doses which are maternally toxic.

MUTAGENICITY: Laboratory experiments have shown mutagenic effects. In vitro tests showed mutagenic effects.

SYNERGISTIC MATERIALS: No data available.

POTENTIAL HEALTH EFFECTS

EYES: May cause severe eye irritation and irreversible eye damage.

SKIN: Prolonged or repeated exposure may cause dermatitis.

SKIN ABSORPTION: Harmful if absorbed through the skin.

INGESTION: May be harmful if swallowed. In the case of vomiting, product may be aspirated into lungs causing chemical pneumonia, which in extreme cases could lead to death. See section 4, First Aid Measures, for more information.

ASPIRATION HAZARD: There is insufficient data available to classify this product as an aspiration hazard. Follow the precautions under INGESTION.

INHALATION: Inhalation can cause unconsciousness and even death in confined or poorly ventilated areas.

MEDICAL CONDITIONS AGGRAVATED: Eye, skin, and respiratory disorders.

GENERAL COMMENTS: Refer to Section 3 for additional information on potential health effects.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: Harmful to aquatic organisms.

PERSISTENCE AND DEGRADABILITY: Insufficient data available.

BIOACCUMULATIVE POTENTIAL: Does not bioaccumulate.

MOBILITY IN SOIL: Insufficient data available.

OTHER ADVERSE EFFECTS: No data available.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Recovered liquids may be sent to a licensed reclaimer or incineration facility. Contaminated material must be disposed of in a permitted management facility. Consult federal, state, and local authorities for approved procedures.

EMPTY CONTAINER: Not applicable.

RCRA/EPA WASTE INFORMATION: Contains material(s) listed by RCRA as a hazardous waste.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Trichloroethylene

TECHNICAL NAME: None.

PRIMARY HAZARD CLASS/DIVISION: 6.1

UN/NA NUMBER: UN1710

PACKING GROUP: III

LABEL: Toxic

OTHER SHIPPING INFORMATION: Not applicable.

CANADA TRANSPORT OF DANGEROUS GOODS

PROPER SHIPPING NAME: Trichloroethylene

PRIMARY HAZARD CLASS/DIVISION: 6.1

UN/NA NUMBER: UN1710

PACKING GROUP: III

REPORTABLE QUANTITY (RQ) UNDER CERCLA: Not available.

LABEL: Toxic

OTHER SHIPPING INFORMATION: Not applicable.

AIR (ICAO/IATA)

PROPER SHIPPING NAME: Trichloroethylene

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN1710

PACKING GROUP: III

LABEL: Toxic

PLACARD: Consult applicable regulations governing air shipments.

IATA NOTE: Consult applicable regulations for packaging requirements and quantity limitations.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES:

FIRE: No. **PRESSURE GENERATING:** No. **REACTIVITY:** No. **ACUTE:** Yes.

CHRONIC: Yes.

313 REPORTABLE INGREDIENTS: Trichloroethylene is reportable.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)**CERCLA RQ:** Trichloroethylene has an RQ of 100 lbs.**REPORTABLE SPILL QUANTITY:** 8 gals**RCRA STATUS:** See section 13.**MEXICO**

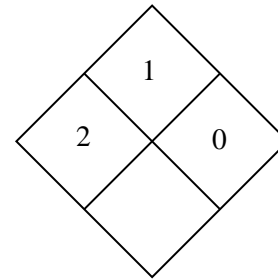
Regulated for transportation.

STATE REGULATIONS**MASSACHUSETTS**

Contains one or more substances regulated by the Massachusetts Substance List.

CALIFORNIA**PROPOSITION 65 STATEMENT:** Trichloroethylene is on the Proposition 65 list of chemicals known to the State of California to cause cancer.**16. OTHER INFORMATION**

HMIS RATINGS	
HEALTH:	3
FLAMMABILITY:	1
REACTIVITY:	0
PERSONAL PROTECTION:	H

NFPA RATINGS**SDS Revision Date:** May 5, 2015