

MATERIAL SAFETY DATA SHEET

Date-Issued: 07/27/2000
MSDS Ref. No: V-1
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Revision No: New MSDS

Vitalsize

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Vitalsize
GENERAL USE: For professional drycleaning use only.
PRODUCT DESCRIPTION: Sizing
PRODUCT CODE: VSZ-US

MANUFACTURER

R. R. Street & Co. Inc.
184 Shuman Boulevard
Naperville, IL 60563
Product Stewardship: 800-323-7206
Transportation: 800-424-9300

24 HR. EMERGENCY TELEPHONE NUMBERS

Emergency Phone: 800-228-5635

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS#</u> <u>EINECS#</u>
Tetrachloroethylene	<55	127-18-4

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES: Substance may cause substantial eye irritation and possible damage.

SKIN: May cause skin irritation.

SKIN ABSORPTION: Prolonged or repeated contact may result in absorption causing adverse health effects described under INHALATION.

INGESTION: Causes severe gastrointestinal irritation; may cause irregular heartbeat, cardiac arrest, unconsciousness or death. May also cause adverse effects on the liver, kidney, nervous system and other internal organs.

INHALATION: High concentrations may cause central nervous system depression, irregular heartbeat, cardiac arrest, unconsciousness or death.

3. HAZARDS IDENTIFICATION (continued)

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: Irritation and pain.

SKIN: Irritation, redness and burning sensation.

SKIN ABSORPTION: Same symptoms as INHALATION.

INGESTION: Nausea, vomiting, cramps and diarrhea.

INHALATION: Irritation of the eyes, nose and throat, headache, drowsiness, dizziness and light headedness.

ACUTE TOXICITY:

If ingested, vomiting may occur; vomit may be aspirated into lungs causing chemical pneumonia.

CHRONIC:

Prolonged or repeated contact may cause dermatitis.

CARCINOGENICITY:

See section 11.

MUTAGENICITY:

Not applicable.

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: See section 11.

TERATOGENIC EFFECTS: Not applicable.

MEDICAL CONDITIONS AGGRAVATED: Acute and chronic liver disease, rhythm disorders of the heart, neuritis.

ROUTES OF ENTRY: Inhalation and skin.

TARGET ORGAN STATEMENT: See section 11.

CANCER STATEMENT: See section 11.

SENSITIZATION: Not applicable.

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 soap and water.

4. FIRST AID MEASURES (continued)

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

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

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

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: None.

AUTOIGNITION TEMPERATURE: Not applicable.

FLAMMABLE CLASS: Not applicable.

EXTINGUISHING MEDIA: Not applicable.

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, carbon monoxide.

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

FLASHPOINT: (footnote) TCC

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, phosgene and chlorine.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

Absorb the liquid and scrub the area with detergent and water.

LARGE SPILL:

Contain spill. Avoid breathing vapor. Clean up spills immediately with absorbent material, observing precautions in the Protective Equipment section. Place absorbed material in closed containers for disposal. Do not flush to sewer. Avoid contamination of ground and surface waters.

7. HANDLING AND STORAGE

HANDLING:

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

7. HANDLING AND STORAGE (continued)

STORAGE:

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

SHELF LIFE: 1 year, minimum.

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>
Tetrachloroethylene	TWA	100		25 ^{*(1)}		
	STEL	200 ⁽²⁾		100		

OSHA TABLE COMMENTS:

- * = A3
- Ceiling concentration. 300 ppm peak concentration allowed once in any 3 hour period.

ENGINEERING CONTROLS: Good general ventilation should be sufficient to control airborne levels.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields (or goggles) and a face shield.

SKIN: Wear Viton(r), PVA, or Barrier(tm) 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 chemical resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield.

WORK HYGIENIC PRACTICES: Wash thoroughly after handling. Do not smoke in presence of vapor. 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

PHYSICAL STATE: Viscous liquid.

ODOR: Perc.

APPEARANCE: Clear.

COLOR: Yellow.

pH: Not applicable.

PERCENT VOLATILE: 40

VAPOR PRESSURE: ~13 mm Hg at 20°C

VAPOR DENSITY: 5.8 (Air=1)

BOILING POINT: 121°C (250°F)

FREEZING POINT: <0°C (32°F)

SOLUBILITY IN WATER: Negligible.

EVAPORATION RATE: 1.4 Butyl acetate = 1

SPECIFIC GRAVITY: 1.23

VISCOSITY: ~350cps at 20°C (68°F)

COEFF. OIL/WATER: No data available.

ODOR THRESHOLD: 50 ppm

COMMENTS:

PERCENT VOLATILE: Approximate.

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

CONDITIONS TO AVOID: Contact with open flame, electric arcs, other hot surfaces which can cause thermal decomposition.

STABILITY: Stable.

POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, phosgene and chlorine.

10. STABILITY AND REACTIVITY (continued)

INCOMPATIBLE MATERIALS: Strong alkalies, strong oxidizers.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD₅₀: >10000 mg/kg (rabbit)

ORAL LD₅₀: >8850 mg/kg (rat)

INHALATION LC₅₀: >4000 ppm (rat)

TARGET ORGANS: Adverse effects have been reported in humans from repeated or prolonged exposure to tetrachloroethylene. Adverse effects on the liver and kidneys have also been reported in lab animal studies. Overexposure to tetrachloroethylene may also have adverse effects on the lungs and nervous system.

CARCINOGENICITY:

IARC: Tetrachloroethylene is classified as 2A.

NTP: Tetrachloroethylene is on the NTP list.

OSHA: Not listed as a carcinogen.

SYNERGISTIC MATERIALS: Consumption of alcohol may increase the potential for development of toxic effects resulting from exposure to tetrachloroethylene.

REPRODUCTIVE EFFECTS: Some fetal effects from inhalation of tetrachloroethylene have been observed in rats and mice.

GENERAL COMMENTS: Refer to Section 3 of this MSDS and the MSDS provided by your tetrachloroethylene (perc) supplier for additional information on potential health effects.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Tetrachloroethylene has moderate persistence in the environment.

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 waste management facility. Consult federal, state and local authorities for approved procedures.

EMPTY CONTAINER: Do not cut or weld full or empty drums.

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

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Tetrachloroethylene

PRIMARY HAZARD CLASS/DIVISION: 6.1

UN/NA NUMBER: UN1897

PACKING GROUP: III

REPORTABLE QUANTITY (RQ) UNDER CERCLA: 18 gal

MARINE POLLUTANT #1: Tetrachloroethylene

OTHER SHIPPING INFORMATION: Containers larger than 15 gallons contain a Reportable Quantity of tetrachloroethylene.

CANADA TRANSPORT OF DANGEROUS GOODS

PROPER SHIPPING NAME: Tetrachloroethylene

PRIMARY HAZARD CLASS/DIVISION: 6.1

UN/NA NUMBER: UN1897

PACKING GROUP: III

AIR (ICAO/IATA)

PROPER SHIPPING NAME: Tetrachloroethylene

PRIMARY HAZARD CLASS/DIVISION: 6.1

UN/NA NUMBER: UN1897

PACKING GROUP: III

PLACARDS: Consult applicable regulations governing air shipments.

IATA NOTE: Consult IATA for 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: Tetrachloroethylene is reportable.

15. REGULATORY INFORMATION (continued)

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: Tetrachloroethylene has an RQ of 100 lbs.

REPORTABLE SPILL QUANTITY: 18 gals

RCRA STATUS: See section 13.

CANADA

WHMIS CLASS: Class D, Division 2

MEXICO

Regulated for transportation.

STATE REGULATIONS

MASSACHUSETTS

Contains one or more substances named on the Massachusetts Substance List.

CALIFORNIA

PROPOSITION 65 STATEMENT: Tetrachloroethylene is on Proposition 65 list.

16. OTHER INFORMATION

REVISION SUMMARY

NFPA CODES

HEALTH: 2 FIRE: 0 REACTIVITY: 0

HMIS CODES

HEALTH: 3 FIRE: 1 REACTIVITY: 0 PROTECTION: H