MATERIAL SAFETY DATA SHEET

Tarr

Portland, Oregon
Phoenix, Arizona
Auburn, Washington
Vancouver, Washington

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Tarr, Incorporated
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PRODUCT NAME: BLANKET WASH FP2
PRODUCT NUMBER: BWFP2
PREPARED BY: Patricia Rodabaugh
DATE PREPARED: 3/17/98
SYNONYMS:

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS	OSHA PEL	ACGIH TLV	Weight %
Tetrachloroethylene	127-18-4	25 ppm	25 ppm	25
Solvent naphtha, medium aliphatic	64742-88-7	100 ppm*	100 ppm*	61
Solvent naphtha, light aliphatic	64742-89-8	300 ppm	300 ppm	7-8
Solvent naphtha, light aromatic	64742-95-6	N/A	N/A	6-7
Contains the following constituents:				
Xylenes	1330-20-7	100 ppm	100 ppm	<1
Trimethylbenzene	526-73-8	25 ppm	25 ppm	2-3
Cumene	98-82-8	50 ppm	50 ppm	<1
Ethyl benzene	100-41-4	100 ppm	50 ppm (skin)	<1

3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW:

WARNING! Keep away from food. Vapor harmful. Do not ship lightly stabilized grades in aluminum trailors. COMBUSTIBLE. Harmful or fatal if swallowed - can enter lungs and cause damage. May cause eye and skin irritation or injury.

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Material may cause eye irritation. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness.

INHALATION: May cause mild irritation to the nose, throat and respiratory tract and may result in central nervous system (CNS) depression.

INGESTION: Do not swallow. Swallowing may cause injury or death.

SKIN CONTACT: Liquid is moderately irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

SIGNS AND SYMPTOMS OF EXPOSURE:

Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea; in extreme cases, unconsciousness and death may occur. Aspiration pneumonitis may be evidenced by coughing, labored breathing an cyanosis.

4. FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. If irritation occurs, get medical attention.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention.

INGESTION: Do not give liquids if victim is unconscious or drowsy. Otherwise, give 2-3 glasses of water, but do not induce vomiting. Get medical attention.

SKIN CONTACT: Remove contaminated clothing/shoes. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

AGGRAVATED MEDICAL CONDITIONS:

Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impared function from preexisiting disorders may be aggravated by exposure to this product. Long-term overexposure may cause liver/kidney injury. In a National Toxicology Program study on Tetrachloroethylene, mice exposed to 400 ppm for 13 weeks were observed to have lesions in the liver including necrosis. Dose-related kedney lesions were observed in rats exposed at 200 or 400 ppm and in mice exposed at 100 or 200 ppm for 6 hours/day, 5 days/week for 103 weeks. Prudent handling practives should be followed to minimizer human exposure.

SUPPLEMENTAL HEALTH INFORMATION:

Notice to Physician: Only administer adrenaline after careful consideration following overexposure. Increased sensitivity of the heart to adrenaline may be caused by overexposure to this product.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: 103 - 110 F **FLASH POINT METHOD USED:** Tag Closed Cup

AUTOIGNITION: NDA **FLAMMABLE LIMITS: LEL:** 0.80% **UEL:** 7.00%

EXTINGUISHING MEDIA:

Use water fog, "alcohol" foam, dry chemical, or CO2.

SPECIAL FIRE-FIGHTING PROCEDURES:

The use of SCBA is recommended for firefighters. Water spray may used to cool containers exposed to heat or flame. Emits toxic fumes under fire conditions. When this product is involved in fires, it can decompose to hydrogen chloride and possible traces of phosgene.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

When heated above the flash point this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mist or spray may be flammable at temperatures below the flash point.

COMBUSTION PRODUCTS:

Carbon monoxide and unidentified organic compounds may be formed during combustion.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED

WARNING. Toxic. Immediately evacuate the area. Provide maximum ventilation to area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.

OTHER PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION (Specify Type):

If exposure may or does exceed occupational exposure limits (Sec. 2) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-suppling respir. or an air-purifying respir. for organic vapors.

VENTILATION:

Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PROTECTIVE GLOVES:

Test data indicate the best protection is provided by neoprene, nitrile, and natural rubber gloves.

EYE PROTECTION:

Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

WORK/HYGIENIC PRACTICES:

Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

ENGINEERING CONTROLS:

Use this material only in well ventilated areas.

EXPOSURE GUIDELINES

May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventillation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR:
Colorless, clear liquid. Mild odor.

SOLUBILITY IN WATER:
Solubility negligible in water

BOILING POINT: 247 F
VAPOR PRESSURE: 7 - 14.2 mmHg. @ 20 C
SPECIFIC GRAVITY: 1.00
MELTING POINT: NDA
FREEZING POINT: NDA
EVAPORATION RATE: Slower than ether
VAPOR DENSITY: Heavier than air

PERCENT VOLATILE: 100
PH: N/A
MOLECULAR WEIGHT: N/A
POUNDS PER GALLON: 8.42
OTHER PROPERTIES:

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID:
Avoid heat, sparks, flame and contact with strong oxidizing agents. Do not store or handle in aluminum equipment at temperatures above 120 deg. F.

INCOMPATIBILITY:
Acids, open flames, hot glowing surfaces or electric arcs.

HAZARDOUS DECOMPOSITION OR BY PRODUCTS
When this product is involved in fires, it can decompose to hydrogen chloride and possible traces of phosgene. Carbon monoxide and unidentified organic compounds may be formed during combustion.

HAZARDOUS POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID:
Avoid heat, flame, and other sources of ignition.

11. TOXICOLOGICAL INFORMATION

This product may contain benzene (CAS No. 71-43-2) at a concentration less than 10 ppm.

12. ECOLOGICAL INFORMATION

Toxic. 100-10ppm (fish) 96-hour TLM LC50. Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

13. DISPOSAL CONSIDERATIONS

The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

14. TRANSPORT INFORMATION

DOT CLASS: Toxic liquids, organic, n.o.s.

HAZARD CLASS: 6.1

UN NUMBER: UN2810

PACKING GROUP: II

GUIDE NUMBER: 153

PROPER SHIPPING NAME: Toxic, liquids, organic, n.o.s. (naphtha, tetrachloroethylene)

15. REGULATORY INFORMATION

This product is listed on the EPA/TSCA inventory of chemical substances. Per 40 CFR part 82, this product does not contain nor was it directly manufactured with any class I or class II ozone depleting substance.

16. OTHER INFORMATION

HMIS INFORMATION: **HEALTH:** 2 **FLAMMABILITY:** 2 **REACTIVE:** 0 **PROTECTION:** H

SARA TITLE III DATA

Xylene (1330-20-7), Trimethylbenzene, 1,2,3 - (526-73-8), Cumene (98-82-8), Ethyl benzene (100-41-4) and Tetrachloroethylene (127-18-4) are listed as a toxic chemicals under Sec. 313 of SARA Title III.

Under Sec. 311/312, this product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

SARA Title III, Section 302: None of the products in this mixture are fouond on the extremely hazardous substances list.

Supplemental Health Info.

Xylene is not listed as a carcinogen by NTP, IARC, or OSHA and we are not aware of data indicating it is mutagenic, carcinogenic or a skin sensitizer. Laboratory animals exposed to prolonged and repeated high doses of Xylene by various routes have shown hearing loss and effects in liver, kidneys, lungs, spleen, heart, blood and adrenals. Developmental toxicity studies showed embryolethal/toxic and teratogenic effects with maternal toxicity. The effects of solvents to human hearing are uncertain. Solvent abusers and noise interaction with Xylene in the work environmental may cause signs of hearing loss.

Carcinogenicity:

In a national Toxicology Program study on Tetrachloroethylene, study rats were exposed to 0, 200, or 400 ppm and mice to 0, 100, or 200 ppm 6 hours/day, 5 days/week for 103 weeks. Significant increases in mononuclear cell leukemia was observed for rats and an increased incidence of hepatocellular (liver) carcinomas was observed for mice. Additionally, significant increases in renal (kidney) tubular cell tumors was found for male rats. An EPA Scientific Advisory Board which reviewed the available data urged caution in concluding from the animal studies that perchloroethylene poses a risk of human cancer due to a substantial background incidence of at least on type of these tumors and possible differences in species specific responses.

Mutagenesis:

Perchloroethylene has been shown to have no or weak mutagenic activity in most test systems.

Reproductive/developmental:

Inhalation exposure of rats of 70, 230, or 470 ppm perchloroethylene for 8 hours/day for 27 weeks resulted in no adverse effects on reporductive performance. Developmental studies on perchloroethylene have failed to show teratogenic effects in rats.

rabbits or mice.

Epidemiology:
Limited epidemiology studies have been inconsistent or negative in regard to cancer.

OTHER ADDITIONAL INFORMATION:
N/A = Not applicable; NDA=No data available

This product contains a chemical or chemicals known to the State of California to cause cancer and/or reporductive toxicity.

Synonyms for Tetrachloroethylene: Perchloroethylene

The information contained herein is based on the data available to us and is believed to be accurate. However, Tarr, Incorporated makes no warranty, expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Tarr, Inc. assumes no responsibility for injuries from the use of the product described herein.