MATERIAL SAFETY DATA SHEET

Date Issued: 10/31/2006
MSDS No: 383200
Revision No: New MSDS

OFF SPEC PERC

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: OFF SPEC PERC
PRODUCT CODE: 383200
ALTERNATE TRADE NAME(S): WASTE Off Spec Perc

MANUFACTURER

Tarr, LLC
P.O. Box 12570
Portland OR 97212
Transportation: 503-288-5294
Service Number: 503-288-5294

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: WARNING! Toxic liquid and vapor. Harmful or fatal if swallowed. Avoid prolonged breathing of vapors. Avoid contact with eyes and skin. Use only in well ventilated areas.

POTENTIAL HEALTH EFFECTS

EYES: Can cause moderate eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

SKIN: Prolonged or repeated exposure may cause skin irritation. May cause drying or flaking of skin. May cause more severe response if confined to skin. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Trichloroethylene may be absorbed through the skin and may cause numbness in fingers immersed in the liquid.

INGESTION: Single dose oral toxicity is considered to be low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing amounts larger than that may cause serious injury, even death. If aspirated (liquid enters the lung), may be rapidly absorbed through the lungs and result in injury to other body systems.

INHALATION: In confined or poorly ventilated areas, vapors can readily accumulate and can cause unconsciousness and death. Excessive exposure may cause irritation to upper respiratory tract.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: Effects of overexposure: vomiting, narcosis, irritation of upper respiratory tract, numbness of limbs, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), pulmonary edema.

CARCINOGENICITY: Tests on laboratory animals indicate material may be carcinogenic.

MUTAGENICITY: Reproductive effects: Tests on laboratory animals indicate material may be mutagenic.

MEDICAL CONDITIONS AGGRAVATED: Medical conditions generally aggravated by exposure: Liver or kidney disorders, lung disease, central nervous system disorders.

TARGET ORGAN STATEMENT: Eyes, skin, respiratory system, heart, liver, CNS. (In animals: liver and kidney cancer)

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Tetrachloroethylene	40 - 60	127-18-4
Trichloroethylene	20 - 40	79-01-6

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention, if irritation occurs or persists.

SKIN: Immediately remove contaminated clothing and shoes. Flush skin thoroughly with large amounts of running water for at least 15 minutes. Get medical attention if skin is damaged or symptoms persist. Properly discard or decontaminate clothing and shoes before reuse.

INGESTION: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

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

NOTES TO PHYSICIAN: Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs unless absolutely necessary. No specific antidote. Supportive care. Treatment based on judgement of the physician in response to reactions of the patient.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: None

FLAMMABLE LIMITS: 0.014 to 0.112

AUTOIGNITION TEMPERATURE: Not yet Determined

EXTINGUISHING MEDIA: Use water fog or fine spray, carbon dioxide (CO2), chemical or foam. Water fog, applied gently may be used as a blanket for fire extinguishment.

HAZARDOUS COMBUSTION PRODUCTS: During a fire, smoke may contain the original material in

addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to hydrogen chloride. Hazardous combustion products may include trace amounts of phosgene, chlorine and carbon monoxide.

OTHER CONSIDERATIONS: Container may bent and/or rupture due to fire. Although this material does not have a flash point, it can burn at room temperature. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas.

FIRE FIGHTING PROCEDURES: Clear fire area of all non-emergency personnel. Do not enter fire space without proper protective gear, including eye protection and respiratory protection to prevent breathing products of combustion. Contain fire water run-off, if possible. Fire water run-off, if not contained, may cause environmental damage. Water fog applied gently may be used as a blanket for fire extinguishment. Stay upwind. Keep out of low areas where gases (fumes) can accumulate.

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

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Remove all sources of ignition and provide ventilation. Wear protective clothing as given in section 8. Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material with absorbent, such as sawdust or vermiculite, and sweep into closed containers for disposal using non-sparking equipment. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for proper disposal.

RELEASE NOTES: Contain liquid to prevent contamination of soil, surface water or ground water. material is heavier than water and has limited water solubility. It will collect on the lowest surface.

7. HANDLING AND STORAGE

HANDLING: To avoid uncontrolled emissions vent vapor from container to storage tank. Do not eat, drink or smoke in working area. Refer to exposure controls/personal protection, section 8, of the MSDS. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers due to possible fire/explosive hazard. Vapors of this product are heavier than air and will collect in low areas such as pits, degreasers, storage tanks, and other confined areas. Do not enter these areas where vapors of this product are suspected unless special breathing apparatus is used and an observer is present for assistance.

STORAGE: Keep containers tightly closed when not in use. Store in a dry place. Do not store in aluminum, zinc, aluminum alloys and plastics. Product should not be packaged in aluminum aerosol cans or with finely divided aluminum or its alloys in an aerosol can. Product is denser than water.

COMMENTS: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) 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; they may explode and cause injury or death.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)			
		EXPOSURE LIMITS	
		OSHA PEL	
Chemical Name		**ppm**	**mg/m³**
Trichloroethylene	**TWA**	100	

ENGINEERING CONTROLS: 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.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: 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.

SKIN: Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

RESPIRATORY: If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-suppling respirator or an air-purifying respirator for organic vapors. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

PROTECTIVE CLOTHING: Wear gloves and protective clothing which are impervious to this product for the duration of anticipated exposure, if there is potential for skin contact.

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

COMMENTS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Mild odor.

COLOR: Clear, colorless liquid.

pH: Not Applicable

VAPOR PRESSURE: Not Determined

VAPOR DENSITY: Heavier than air.

BOILING POINT: (189°F) to (250°F)

SOLUBILITY IN WATER: Slight

EVAPORATION RATE: Slower than ether.

DENSITY: ~ 13.52

SPECIFIC GRAVITY: 1.618 to 1.622 at (77°F)

10. STABILITY AND REACTIVITY

STABLE: Yes

STABILITY: Avoid heat, sparks, flame and contact with strong oxidizing agents.

POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid heat, flames, ignition sources and incompatibles.

HAZARDOUS DECOMPOSITION PRODUCTS: May form: carbon dioxide and carbon monoxide, chlorine, hydrogen chloride, phosgene. Open flame, welding arcs, resistance heaters, etc., which can result in thermal decomposition releasing hydrogen chloride and small amounts phosgene and chlorine.

INCOMPATIBLE MATERIALS: This product is incompatible with strong acids or bases, oxidizers, alkali metals, and halogens.

11. TOXICOLOGICAL INFORMATION

CARCINOGENICITY

Notes: Tumors were observed in mice given large doses of trichloroethylene. A very low incidence of tumors has been observed in male rats at high levels of trichloroethylene which caused reduced survival, rendering these studies inadequate. Data suggest a nongenotoxic mechanism for tumor formation that implies that nontoxic does of trichloroethylene should pose little or no carcinogenic hazard. Human data have not established an associated between trichloroethylene exposure and cancer. Trichloroethylene is not believed to pose a measurable carcinogenic risk to man when handled as recommended. This chemical is listed as a potential carcinogen by IARC.

REPRODUCTIVE EFFECTS: In animal studies, trichloroethylene has been shown not to interfere with reproduction.

TERATOGENIC EFFECTS: Birth defects are unlikely. Exposures having no effect on the mother should have no effect on the fetus. Did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects to the mother.

GENERAL COMMENTS: SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Alcohol consumed before or after exposure may increase adverse effects. Trichloroethylene is reported to have caused hearing loss in laboratory animals upon repeated exposure to 2500 PPM or higher (orders of magnitude greater than the current occupation exposure standards). However, the relevance of this to humans is unknown. High levels have caused liver or kidney effects in laboratory animals.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Movement and Partitioning: Bioconcentration potential is low. Log octanol/water partition coefficient (Log POW) is 2.42. Potential for mobility in soil is high (KOC between 50 and 150). Log soil organic carbon partition coefficient (LOG KOC) is 1.6 - 2.0. Bioconcentration factor

(BCF) in fish is between 17-90. Henry's Law Constant (H) is 1.03E-02 ATM-M3/MOL.

ECOTOXICOLOGICAL INFORMATION: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.
Trichloroethylene is moderately toxic to aquatic organisms on an acute basis (LC50 between 1 and 10 MG?L in most sensitive species).
Acute LC-50 for Grass Shrimp (Palaemonetes Pugio): 2 mg/l
Acute LC50 for Mysid (Mysidopsis Bahia): 14 mg/l
Acute LC-50 for Water Flea (Daphnia Magna): 2.2-100 mg/l

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: 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.

EMPTY CONTAINER: 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.

RCRA/EPA WASTE INFORMATION: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Waste Toxic, Liquids, Organic, N.O.S.

TECHNICAL NAME: (Tetrachloroethylene, Trichloroethylene)

PRIMARY HAZARD CLASS/DIVISION: 6.1

UN/NA NUMBER: UN 2810

PACKING GROUP: III

NAERG: 153

LABEL: Poison (PG III)

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: This product should be reported as an immediate (acute) health hazard, and a delayed (chronic) health hazard.

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

313 REPORTABLE INGREDIENTS: Trichloroethylene (CAS 79-01-6) and Tetrachloroethylene

(Perchloroethylene) (CAS 127-18-4) are listed.

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: 100 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

TSCA STATUS: Listed.

16. OTHER INFORMATION

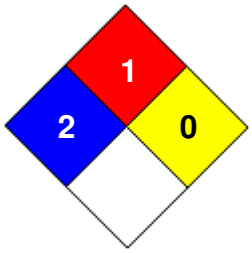
PREPARED BY: P. Rodabaugh

REVISION SUMMARY: New MSDS

HMIS RATING

HEALTH:	2
FLAMMABILITY:	1
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	X

NFPA CODES



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