



Material Safety Data Sheet
Tanaka Perfect Mix® Two Stroke Engine Oil
www.tanaka-usa.com

Section 1 Chemical Product and Company Information

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PRODUCT TRADE NAME: Tanaka Perfect Mix Two Stroke Engine Oil
 CAS NO: Not applicable for mixtures
 SYNONYMS: None
 GENERIC/CHEMICAL NAME: Mixture
 PRODUCT TYPE: Two Cycle Oil
 PREPARATION/REVISION DATE: 1/01/2005
 TRANSPORTATION EMERGENCY PH NO: 1-800-661-3558

Section 2 Composition/Information On Ingredients

Components	CAS#	Exposure Limits	% Wt.
Highly Refined Petroleum Oil	64741-88-4	Oil Mist PEL (5mg/m ³) TLV (5mg/m ³) STEL (10mg/m ³)	68
Hydrotreated, Solvent Refined Petroleum Oil	64742-57-0	PEL (5mg/m ³)	12
	64742-62-7	TLV (5mg/m ³)	
	64741-88-4	STEL (10mg/m ³)	
Hydrotreated Light Distillates	64742-47-8	No Limit	13
Additive Mixture Containing Proprietary Compound of Ca, Zn, S, P, N, Mg Acrylic Copolymer		Oil Mist	7
		OSHA PEL (5mg/m ³)	
	64741-88-4	ACGIH TLV-TWA (5mg/m ³)	
	72623-86-0		

(This may not be a complete list of components)

Section 3 Hazards Identification

PRINCIPAL HAZARDS: See Section 11 for complete health hazard information.

Health: 1 Fire: 1 Reactivity: 0

Section 4 First Aid Measures

EYES:	Flush eyes with clean, low-pressure water for at least 15 minutes, occasionally lifting the eyelids. If pain or redness persists after flushing, obtain medical attention.
SKIN:	Remove by wiping, then wash skin thoroughly with plenty of soap and water. Remove contaminated clothing and thoroughly clean before reuse. Discard contaminated leather gloves and shoes.
INHALATION:	Vaporization is not expected at ambient temperatures and this material is not expected to be an inhalation problem under anticipated conditions of use. In case of overexposure, move person to fresh air.
INGESTION:	If more than a half-cup full of this material is swallowed, give quantities of water, do not induce vomiting, and obtain medical attention.
ADDITIONAL:	Note to physician: Treatment based on judgment of the physician response to reactions of the patient. May aggravate pre-existing respiratory conditions. Treat symptomatically.

Section 5 Firefighting Measures

FLASH POINT (Typical):	122° C (252° F)	Method: COC D92
UPPER FLAMMABLE LIMIT:	Not Determined	
LOWER FLAMMABLE LIMIT:	Not Determined	
AUTOIGNITION TEMPERATURE:	Not Determined	
HAZARDOUS COMBUSTION PRODUCTS:	Burning or excessive heating may produce carbon monoxide and other harmful gases/vapors including oxides and/or other compounds of zinc, sulfur, and phosphorous also hydrogen sulfide.	
EXTINGUISHING MEDIA:	Dry chemical and carbon dioxide. Foam and water fog are effective, but may cause frothing.	
FIRE FIGHTING INSTRUCTIONS:	OSHA/NFPA Class IIIB Combustible Liquid. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of combustion products and oxygen deficiencies. If firefighters cannot work upwind to the fire, respiratory protective equipment must be worn. Cool tanks and containers exposed to fire with water.	

Section 6 Accidental Release Measures

SMALL SPILL PROCEDURES: Absorb spill with an inert material (e.g. dry sand or earth), then place in a chemical waste container.

LARGE SPILL: Contain spill and prevent it from entering all water bodies, if possible. Safely stop flow of spill. Evacuate non-essential personnel from immediate spill area due to slipping hazards. In urban area, cleanup as soon as possible. In natural environments, cleanup on advice from ecologists. This material will float on water. Absorbent materials and pads can be used. Comply with all applicable laws. Spills may need to be reported to the National Response Center (800-424-8802).

Section 7 Handling and Storage

HANDLING PROCEDURES: Keep away from heat, sparks and flame. Use of oil impervious gloves recommended.

STORAGE PROCEDURES: **KEEP OUT OF REACH OF CHILDREN!**
To avoid product degradation, water contamination should be avoided and minimum feasible handling temperatures should be maintained. Product degradation might increase health hazard risks.

STORAGE TEMPERATURE: Ambient

STORAGE PRESSURE; Atmospheric

Section 8 Exposure Controls/Personal Protection

VENTILATION PROCEDURE: Use adequate ventilation to keep oil mists of this material below applicable guideline(s) standards(s).

EYE PROTECTION: Safety Glasses. In the likelihood of splashing or spraying, and if especially if the material is hot (GT 125F), wear goggles and/or face shield. Eye wash water should be available. Hard contact lenses must not be worn.

RESPIRATORY PROTECTION: Under normal use conditions, respirator is not usually required. Use NIOSH/MSHA approved disposable dust/mist mask if the recommended exposure limit is exceeded.

SKIN PROTECTION: Avoid prolonged and/or repeated skin contact, or wear impervious protective clothing. When leaving work, wash hands/exposed skin with soap and water.

Section 9 Physical And Chemical Properties

APPEARANCE:	Blue/Green
SPECIFIC GRAVITY:	0.86 – 0.88
VISCOSITY:	7.1 cSt @ 100° C (Typical)
FLASH POINT:	122° C
PERCENT VOLATILE:	Negligible
VAPOR DENSITY:	Not Determined
ODOR:	Slight Petroleum
VAPOR PRESSURE:	Not Determined
WATER SOLUBILITY:	Negligible

Section 10 Stability And Reactivity

STABILITY:	STABLE – avoid extreme heat and open flame.
INCOMPATIBILITY:	Strong acids, alkalis and oxidizers such as liquid chlorine and oxygen.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon Monoxides and other harmful gases/vapors including oxides and/or other compounds of zinc, sulfur, phosphorous and hydrogen sulfide.

Section 11 Toxicological Information

EYE IRRITATION:	No significant adverse health effects are expected to occur upon short-term exposure. Slight redness, swelling or blurred vision may occur.
SKIN IRRITATION:	Avoid skin contact. When contact occurs, wash properly to remove. Mild skin irritation may occur upon short-term exposure. Swelling or blistering upon long-term exposure.
INHALATION TOXICITY:	No significant adverse health effects are expected to occur under normal conditions of use. However, exposure to petroleum mist at high levels may be irritating to the nose, throat and lungs.
INGESTION:	Harmful if aspirated into lungs.
CHRONIC EFFECTS/ CARCINOGENICITY:	Laboratory studies sponsored by the American Petroleum Institute show that mice develop skin cancer following repeated application and continuous exposure to a used motor oil composite. Avoid contact with used motor oils. Personnel with pre-existing skin disorders should avoid contact with this product.

Section 12 Ecological Information

ECOTOICOLOGICAL INFORMATION: The spilled material and any soil or water, which it has contaminated, may be hazardous to animal/aquatic life.

Section 13 Disposal Considerations

WASTE DISPOSAL: Maximize product recovery for reuse or recycling. Conditions of use may cause this material to become a "Hazardous Waste", as defined by state or federal laws. Use approved treatment, transporters and disposal sites in compliance with all applicable laws. If spill is introduced into a waste-water treatment system, chemical and biological oxygen demand will likely increase. Spill material is biodegradable if gradually exposed to microorganisms. Potential treatment and disposal methods includes land farming, incineration and land disposal if permitted.

Section 14 Transport Information

DOT Hazardous Materials Proper Shipping Name: Not a D.O.T. "HAZARDOUS MATERIAL"

DOT Hazard Class	UN/NAID No.
Not Regulated	Not Regulated

Section 15 Regulatory Information

SUPERFUND AMMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III: Section 311/312 Hazard Categories. Immediate (Acute) and delayed (Chronic) Health hazards.

TOXIC SUBSTANCE CONTROL ACT (TSCA): All components of this product are listed on the TSCA inventory.

CERCLA HAZARDOUS SUBSTANCES: No chemicals in this product are subject to the reporting requirements of CERCLA.

CAL. PROP. 65: This product is not know to contain any chemicals currently listed as carcinogens or reproductive toxin under California Proposition 65 at levels which would be subject to the proposition.

Section 16 Other Information**Disclaimer of Liability**

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. **For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling storage, use or disposal of this product.**

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable

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