



**SINOPEC TO-4**  
**Heavy Duty Transmission Fluid**  
**10W**



**Material Safety Data Sheet**

Not classified as hazardous

**1. PRODUCT IDENTIFICATION**

<b>Product Name</b>	SINOPEC TO-4 Heavy Duty Transmission Fluid 10W
<b>Common Characteristics</b>	Liquid can be dissolved in oil
<b>Recommended Use</b>	Used in equipment for lubricating, cooling and airproofing, etc.

**2. COMPOSITION**

<b>Chemical Name</b>	<b>CAS Registry No.</b>	<b>Concentration %</b>
Base oil	Proprietary Mixture	<20
Additives	Proprietary Mixture	>80

**3. HAZARDS INFORMATION**

<b>Hazard Classification</b>	Not classified as hazardous The International Agency for Research on Cancer (IARC) has determined there is sufficient evidence for carcinogenicity in experimental animals of used oil. Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation.
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**4. FIRST AID MEASURES**

<b>Eye</b>	Flush with water for 15 minutes. If irritation occurs, get medical attention.
<b>Skin</b>	Flush skin with water, and then wash with soap and water. If irritation or pain persists or there is visible tissue damage, get medical attention. If material is injected under the skin, seek medical attention immediately.
<b>Inhalation</b>	Remove victim to fresh air and provide oxygen. Get medical attention
<b>Ingestion</b>	Do not induce vomiting unless recommended by physician. Get medical attention.
<b>Note to Physician</b>	Cure according to symptoms.

**5. FIRE FIGHTING MEASURES**

<b>NFPA Classification</b>	Class IIIB
<b>Extinguishing Media</b>	Use carbon dioxide, dry chemical or foam.
<b>Hazards from Combustion</b>	Under fire conditions, this product may emit toxic and/or irritating fumes including nitrogen oxides, carbon oxides, sulfur oxides and inorganic and organic compounds.
<b>Product Specific Hazards</b>	Combustible liquid. This product will readily burn under fire conditions. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to prevent exposure to vapor or fumes.
<b>Protection of Firefighter</b>	
<b>Extinguishing Method</b>	Spray Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.
<b>Hazardous Combustion Products</b>	
<b>Forbidden Media</b>	Water

## 6. ACCIDENTAL RELEASE MEASURES

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<b>Protective Measures</b>	Take care of your own safety before attempting any cleanup. Wear appropriate protective equipment when cleaning up spills.
<b>Spill Management</b>	Comply with all local laws and regulations
	Contain spill and remove with vacuum truck or pump to storage/salvage vessels. In outdoor environments, seek professional cleanup advice.
<b>FOR LARGE SPILLS:</b>	
	Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.
<b>FOR SMALL SPILLS:</b>	

## 7. HANDLING AND STORAGE

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<b>Storage</b>	Do not store in open or unlabeled containers. Store in cool, dry place with adequate ventilation. Keep away from open flame, sparks and high temperature.
	Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat or flame. Empty containers may contain residues that could ignite under force and severe conditions.
<b>Empty Container Warning</b>	

## 7. EXPOSURE CONTROLS/PERSONAL PROTECTION

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<b>Exposure Controls</b>	Provide adequate ventilation to control airborne concentrations below the exposure guidelines/limits.
	If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, a NIOSH-approved organic vapor respirator with a dust/mist prefilter, in accordance with OSHA requirements (29 CFR 1910.134) must be worn.
<b>Respiratory Protection</b>	
<b>Eye Protection</b>	Chemical goggles or safety glasses with side shields.
<b>Hand Protection</b>	Use protective gloves that are chemically resistant to material.
<b>Personal Protection</b>	Use protective clothing and shoes which are chemically resistant to this material.
	Wash hands and exposed areas with soap and water before eating, drinking, smoking, using the facilities or after contact with product.
<b>Note to Sanitation</b>	
<b>Occupational Exposure Guidelines</b>	

<b>Substance</b>	<b>Acceptable Workplace Exposure Levels</b>	
Oil Mist,	<b>ACGIH (United States)</b>	TWA: 5mg/m <sup>3</sup> 8 hour(s)
Mineral		STEEL: 10mg/m <sup>3</sup> 15 minute(s)
	<b>OSHA (United States)</b>	TWA: 5mg/m <sup>3</sup> 8 hour(s)

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Physical State</b>	Liquid	<b>Melting Point</b>	No data available
<b>Color</b>	Brown and transparent	<b>Boiling Point</b>	No data available
<b>Odor</b>	No peculiar smell	<b>Solubility in Water</b>	Negligible
		<b>Vapor Pressure</b>	No data available
		<b>Flash Point</b>	>200°C
		<b>Kinematic Viscosity</b>	41.5 cSt @ 100°C
			6.7 cSt @ 100°C

## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable under normal conditions of storage and handling
<b>Conditions to Avoid</b>	Extreme heat and high energy sources of ignition

**Materials Incompatibility** Strong oxidizing agents and strong acids  
**Hazardous Decomposition Products** Under fire conditions this product may emit toxic and/or irritating fumes including nitrogen oxides, carbon oxides, sulfur oxides and inorganic organic compounds.

## 11. TOXICOLOGICAL INFORMATION

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**Acute Toxicity**  
ORAL TOXICITY (LD50) Acute: >5000mg/kgBW Rats. Based on testing of similar products and/or components.  
INHALATION TOXICITY (LD50) Acute: >10000mg/m3 Rats. Based on testing of similar products and/or components.

## 12. ECOLOGICAL INFORMATION

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**Ecological Information** Through long time infiltration, it may product ecological toxicity.  
**Mobility** Floats on water. When released into the environment, absorption to sediment and soil will be the predominant behavior.  
**Persistence and Degradability** This product is expected to be inherently biodegradable.  
**Bio accumulative Potential** Bioaccumulation is unlikely due to the very low water solubility of product, therefore bioavailability to aquatic organisms is minimal, although oil spills can mother and suffocate aquatic life by preventing oxygen into the water. Oil contamination can foul and smother birds and marine animals. Do not discharge this material into waterways, drains and sewer.

## 13. DISPOSAL CONSIDERATIONS

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**Disposal Considerations** Disposal, transportation, storage and/or treatment of spilled or waste material must be done in accordance RCRA regulations [40CFR 260 - 40CFR 271]. Check with state and/or local laws for further restrictions. Do not puncture, cut or weld empty containers.

## 14. TRANSPORT INFORMATION

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**Land (DOT)** Not regulated as a hazardous material by the Department of Transportation.  
**Land (TDG)** Not regulated as a hazardous material by the Department of Dangerous Goods.  
**Sea (IMDG)** Not regulated as a hazardous material by the International Maritime Dangerous Goods Code.  
**Air (IATA)** Not regulated as a hazardous material by the International Air Transportation Association.

## 15. REGULATORY INFORMATION

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**OSHA Hazard** Not considered as hazardous in accordance to OSHA 29 CFR 1910.1200.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.