

TESLA CORPORATION
PO BOX 114132, Dubai, UAE
MATERIAL SAFETY DATA SHEET
Section 1 - PRODUCT IDENTIFICATION

SUPPLIER
TESLACorporation,
PO BOX 114132, Dubai, UAE
CHEMICAL NAME AND SYNONYMS
Not applicable
CHEMICAL FAMILY
Petroleum Hydrocarbon

EMERGENCY TELEPHONE NUMBERS
Company (+971) 561144201

TRADE NAME AND SYNONYMS
CAPELLA ANTIFREEZE AND COOLANT
FORMULA
Not applicable

APPEARANCE Blue liquid
ODOR Mold to odorless
SIGNAL WORD CAUTION
MELTING POINT, °C NA
VAPOR PRESSURE (mm Hg at 25.0 °C) NA

Viscosity, cst at 40° C na
Viscosity, cst at 100° C na
Solubility in Water Soluble
Flash Point, Open Cup, °C NA
Sp. Gravity (H₂O=1) 1.015

NFPA 704 HAZARD CLASS

Health 1 Slight
Flammability 1 Slight
Instability 0 Least

HMIS HAZARD CLASS

Health 1 Slight
Flammability 1 Slight
Instability 0 Least

Section 2 - INGREDIENTS

1-2 Propanediol CAS Number: 57-55-6 60 to 100%

Section 3. HAZARDS IDENTIFICATION

Eye Contact may cause mild eye irritation including stinging, watering and redness
Skin Contact may casue mild skin irritation including redness, and a burning sensation. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin leading to dermatitis (inflammation)
No harmful effects from skin absorption are expected
Inhalation (breathing) No data available. However inhalation is notan expected route of exposure
Ingestion (Swallowing) Low degree of toxicity by ingestions
Signs and Symptoms: Effects of overexposure may include irritation of the nose and throat, irritation of the respiratory tract, irritatiion of the digestive tract, nausea and diarrhea
Cancer: Inadequate evidence availabel to evaluate cancer hazard of this material. See Section 11 for carconogenicity information of individual components, if any
Target organs: No data available fo rthis material
Developmental : No data available for this material
Pre-existing medical conditions: Conditions aggravated by exposure may include skin disorders

Section IV - FIRST AID MEASURES

Eye if irritation or redness develops, move victim away from exposure and into fresh air. Flush eys with clean water
If symptions persist, seek medical attention
SKIN Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops and persists, seek medical attention
Ingestion (Swallowing) First aid is not normally required; however if swallowed and symptions develop, seek medical attention

Section IV - FIRE FIGHTING MEASURES

Flash Point: 350 Deg C OSHA FLAMMABILITY CLASS NOT APPLICABLE
LEL% NO DATA: UEL% NO DATA: NFPA FLAMMABILITY CLASS: NO DATA: AUTO IGNITION TEMP NO DATA
EXTINGUISHING MEDIA

Foam, dry chemical, water fog or carbon dioxide. Water or foam may cause frothing of materials above 100 deg C.
Carbon dioxide can replace oxygen. Use caution when applying carbon dioxide in confined spaces

SPECIAL FIRE FIGHTING PROCEDURES

For fires beyond the incipient stage, emergency responders in the immedate hazard are should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see section 8)
Isolate immedate hazard area, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Water spray may be useful in minimizing or dispersing vapours and to protect personnel. Cool equipment exposed to fire with water, if it can be done with minimal risk
Avoid spreading burning liquid with water used for cooling purposes

UNUSUAL FIRE AND EXPLOSION HAZARDS

This material may burn but will not ignite rapidly. Vapours are heavier than air and can accumulate in low areas
If container is not properly cooled, it can rupture in the heat of fire

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Section 6 ACCIDENTIAL RELEASE MEASURES

This material may burn but will not ignite rapidly. Keep all sources of ignition away from spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see section 8)

Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways. Dike far ahead of spill for later recovery and disposal. Spilled material may be absorbed into an appropriate absorbent material. Notify fire authorities and appropriate federal, state and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zones, or adjoining shorelines, notify the national response center, if any

7. HANDLING AND STORAGE

Handling: Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D 4276 and 29 CFR 1910-146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see section 2 and 8)

Do not wear contaminated clothing or shoes. Use good personal hygiene practices

Empty containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks or other sources of ignition. They may explode and cause injury or death. Empty drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

High pressure injection of hydrocarbon fuels, hydraulic oils or greases under the skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection equipment or from pinhole leaks in tubing of high pressure hydraulic equipments.

Before work on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z 49.1 and other references pertaining to cleaning, repairing, welding or other contemplated operations

Storage: keep containers tightly closed. Store only in approved containers. Use and store this material in a cool, dry well ventilated areas away from heat and all sources of ignition. Storage temperatures above 45 deg C may lead to thermal decomposition, resulting in the generation of hydrogen sulfide and other sulfur containing gases. Keep away from incompatible material (See section 10) Protect containers against physical damage

SECTION 8. EXPOSURE CONTROLS/PERSONNEL PROTECTION

Exposure limit of 1,2 Propanediol is 10 mg/cubic meter 8 hours as per AIHA WEEL (US, 5/2010) TWA

Personnel Protective Equipment (PPE)

Respiratory: a NIOSH certified air purifying respirator with a type 95 (R or P) particulate filter may be used under conditions where airborne concentrations are expected to exceed exposure limits (see section 2)

Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a NIOSH approved self contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode if there is potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z 88.2 requirements must be followed whenever workplace conditions warrant a respirator's use

Skin: The use of gloves impervious to the specific material handled is advised to prevent skin contact and possible irritation (see manufacturer's literature for information on permeability)

Eye/Face: Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended. Depending upon conditions of use, a face shield may be necessary

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Note Unless otherwise stated, values are determined at 20 deg C and 760 mm Hg (1 atm)

Appearance	Blue to colorless liquid	pH	Not applicable	
Physical Form	Liquid	Vapour pressure, mm hg	<0.013 kPa	
Odor	Mild to odorless	Vapour density, air=1	3	
Odor Threshold	No data	Boiling point	No data	
solubility in water	Soluble			
Partition coefficient (n-octanol/water)	No data	Specific gravity	1.02 to 1.03	
percent volatile	Negligible	Evaporation rate (nBuAc=1)	NA	
Flash Point: 100 deg C as per COC		LEL,% and UEL,%	No Data	
Autoignition temperature:	No data			

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SECTION 10 STABILITY AND REACTIVITY

Solubility Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure

CONDITIONS TO AVOID Extended exposure to high temperatures can cause decomposition

MATERIALS TO AVOID (INCOMPATIBLE MATERIALS) Avoid contact with acids, strong oxidising agents

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may yield carbon, nitrogen, sulfur, phosphorous, and zinc oxides. Hydrogen sulfide and alkyl mercaptans may also be released. Thermal decomposition may produce hydrogen sulfide and other sulfur containing gases at temperatures above 45 deg C

HAZARDOUS POLYMERISATION WILL NOT OCCUR

Section 11 TOXICOLOGICAL INFORMATION

Chronic Data No specific data

Product/Ingredient name	Result	Species	Dose	Exposure
1,2 Propanediol	LD 50 Dermal	Rabbit	20800 mg/kg	
	LD 50 Oral	Rat	20.8 g/kg	

Section 12 ECOLOGICAL INFORMATION

Product/Ingredient name	Result	Species
1,2 Propanediol	Acute LC50>1000mg/L Marine water	Crustaceans-Chaetogammarus marinusYoung 5 mm
	Acute LC50 102000 ug/L Fresh water	Daphnia - ceriodaphnia dubai <=24 hrs
	Acute LC50 7100000ug/L Fresh water	Fish = pimephales promelas <=7 days
	Chronic NOEC 660000ug/l Fresh wtr	Daphnia - ceriodaphnia dubai <=24 hrs
	Chronic NOEC 600000 ug/L Fresh wter	Fish = pimephales promelas <=7 days

Section 13; DISPOSAL CONSIDERATIONS

This material, is discarded as produced, is not a RCRA Listed hazardous waste. However it should be fully characterized for toxicity prior to disposal (40 CFR 261). Use which results in chemical or physical change or contamination may subject it to regulation as a hazardous waste. Along with properly characterizing all waster materials, consult state and local regulations regarding the proper disposal of this material

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous water and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with local regulations and disposal authorities

SECTION 14 TRANSPORTATION INFORMATION

DOT Proper shipping name Not regulated

IMDG shipping description Not regulated

ICAO/IATA shipping descriptio Not regulated

Section 15 Regulatory Information

US Regulations United states inventory TSCA 8B all components are listed or exempted

EPA SARA 311/312 (Title III Hazard categories)

Acute Health No

Chronic Health No

Fire Hazard No

Pressure Hazard No

Reactive Hazard No

International Regulations

Canadian Regulations: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

Domestic Substances Act: Listed

WHIMIS Classification: not regulated

Section 16 Other information

Label information: MAY CAUSE EYE AND SKIN IRRITATION

Hazardous Material Information System (USA) Health 1

Flammability 1

Reactivity 0

NFPA Health 1

Flammability 1

Reactivity 0

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