



Safety Data Sheet

SECTION 1 IDENTIFICATION OF THE HAZARDOUS CHEMICAL AND OF THE SUPPLIER

Techron D Concentrate

Product Use: Diesel Fuel Additive

Product Number(s): 510728

Company Identification

Chevron Malaysia Limited
Level 3, Menara Milenium
8, Jalan Damanlela, Bukit Damansara
Kuala Lumpur 50490
Malaysia

Transportation Emergency Response

Malaysia: 1800-88-3188

Health Emergency

Chevron Emergency & Information Center: Located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

Product Information

Product Information: 1800-88-3188

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION: Aspiration toxicant: Category 1. Chronic aquatic toxicant: Category 3.



Signal Word: Danger

Health Hazards: May be fatal if swallowed and enters airways (H304).

Environmental Hazards: Harmful to aquatic life with long lasting effects (H412).

PRECAUTIONARY STATEMENTS:

General: Keep out of reach of children (P102). Read label before use (P103).

Prevention: Avoid release to the environment (P273).

Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician (P301+P310). Do NOT induce vomiting (P331).

Storage: Store locked up (P405).

Disposal: Dispose of contents/container in accordance with applicable local/regional/national/international regulations (P501).

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS OF HAZARDOUS CHEMICAL

COMPONENTS	CAS NUMBER	AMOUNT
Distillates, hydrotreated light	64742-47-8	60 - 70 %weight
2-Ethylhexyl nitrate	27247-96-7	20 - < 25 %weight
2-Ethylhexanol	104-76-7	1 - < 5 %weight

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

Skin: Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

Most important symptoms and effects, both acute and delayed

IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation.

Skin: Skin contact may cause drying or defatting of the skin. Symptoms may include pain, itching, discoloration, swelling, and blistering. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

Ingestion: Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death.

Inhalation: Not expected to be harmful if inhaled.

DELAYED OR OTHER HEALTH EFFECTS:

Reproduction and Birth Defects: This material is not expected to cause adverse reproductive effects based on animal data.

Indication of any immediate medical attention and special treatment needed

Note to Physicians:

Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Unusual Fire Hazards: See Section 7 for proper handling and storage.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids,

liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Nitrogen .

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Eliminate all sources of ignition in the vicinity of the spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

Environmental Precautions: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater.

Methods and Material For Containment and Cleaning Up: Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil and dispose of in a manner consistent with applicable requirements. Place other contaminated materials in disposable containers and dispose of in a manner consistent with applicable requirements. Report spills to local authorities as appropriate or required.

SECTION 7 HANDLING AND STORAGE

General Handling Information: The maximum handling temperature is 51°C. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Precautionary Measures: Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive force. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches.

Storage, processing, handling, and use at temperatures above the flash point can produce ignitable vapors if the liquid is released or vessels are vented. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Wash thoroughly after handling. Keep out of the reach of children.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, 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. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

General Storage Information: The maximum storage temperature is 45°C. DO NOT USE OR STORE near heat, sparks, flames, or hot surfaces . USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the

personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Nitrile (0.1mm @ 240-480') EN374, Nitrile (0.4mm @ >480') EN374, Viton Butyl (0.7mm @ >480') EN374.

Respiratory Protection: No respiratory protection is normally required.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

No applicable occupational exposure limits exist for this material or its components. Consult local authorities for appropriate values.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Amber

Physical State: Liquid

Odor: Characteristic

Odor Threshold: No data available

pH: Not Applicable

Vapor Pressure: No data available

Vapor Density (Air = 1): No data available

Boiling Point: No data available

Boiling Range: No data available

Solubility: Soluble in hydrocarbons; insoluble in water

Freezing Point: Not Applicable

Melting Point: No data available

Specific Gravity: 0.8540 @ 15°C (59°F) (Typical)

Density: No data available

Viscosity: 1 mm²/s @ 40°C (104°F) (Minimum)

Evaporation Rate: No data available

Decomposition temperature: No data available

Octanol/Water Partition Coefficient: No data available

FLAMMABLE PROPERTIES:

Flashpoint: (Pensky-Martens Closed Cup) 62 °C (144 °F) (Minimum)

Autoignition: No data available

Flammability (Explosive) Limits (% by volume in air): Lower: Not Applicable Upper: Not Applicable

SECTION 10 STABILITY AND REACTIVITY

Reactivity: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility With Other Materials: Not applicable

Hazardous Decomposition Products: None known (None expected)

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: The eye irritation hazard is based on evaluation of data for product components.

Skin Irritation: The skin irritation hazard is based on evaluation of data for product components.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for product components.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for product components.

Acute Toxicity Estimate: Not Determined

Germ Cell Mutagenicity: The hazard evaluation is based on data for components or a similar material.

Carcinogenicity: The hazard evaluation is based on data for components or a similar material.

Reproductive Toxicity: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Single Exposure: The hazard evaluation is based on data for components or a similar material.

Specific Target Organ Toxicity - Repeated Exposure: The hazard evaluation is based on data for components or a similar material.

ADDITIONAL TOXICOLOGY INFORMATION:

This package contains 2-Ethylhexanol.

SUBCHRONIC EFFECTS: Rats were treated with 0 - 500 mg/kg/day 2-EH by gavage for 3 months. At 250 mg/kg/day, effects included changes in serum chemistry and decreased fat deposition in liver cells of males. At 500 mg/kg/day, additional findings included changes in serum cholesterol, increased liver reticulocytes, and forestomach lesions. Mice dosed by gavage with 0 - 500 mg/kg/day, 5 days/week for 13 weeks, also had forestomach lesions in high-dose animals. In a 90-day subchronic inhalation toxicity study on Wistar rats, no treatment-related findings occurred at the highest concentration tested (120 ppm).

REPRODUCTION AND BIRTH EFFECTS: In an oral exposure study in rats treated on Gestational Day 12 (GD 12) at 833 or 1666 mg/kg, 2-EH was reported to cause malformations and growth retardation without maternal toxicity. However, a multiple-dose oral exposure study in rats on GD 6-15 at 0 - 1300 mg/kg/day, resulted in significant maternal toxicity, including deaths at 650 and 1300 mg/kg/day. In inhalation exposures (GD 1-19, 850 mg/cu m) or dermal exposures of pregnant rats (GD 6-15 at 0 - 2520 mg/kg/day), 2-EH caused neither maternal nor developmental toxicity. Oral exposure of mice (GD 0-17 at 0 - 191 mg/kg/day) did not induce maternal or developmental toxicity. In mice dosed on GD 6-13 at 1525 mg/kg/day, developmental toxicity occurred concurrent with severe maternal toxicity including deaths.

The weight-of-evidence from studies in laboratory animals suggests that 2-EH is not a selective developmental toxicant, but can cause adverse developmental effects at dose levels that cause significant toxicity in the pregnant

adult.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

This material is expected to be harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

The product has not been tested. The statement has been derived from the properties of the individual components.

MOBILITY

No data available.

PERSISTENCE AND DEGRADABILITY

This material is not expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.

Octanol/Water Partition Coefficient: No data available

SECTION 13 DISPOSAL INFORMATION

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations.

SECTION 14 TRANSPORTATION INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Description: UN1268, PETROLEUM DISTILLATES, N.O.S., COMBUSTIBLE LIQUID, III
ADDITIONAL INFORMATION: NON-BULK PACKAGES ARE EXEMPTED FROM THE PROVISIONS OF 49 CFR IN US JURISDICTIONS.

IMO/IMDG Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE IMDG CODE

ICAO/IATA Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO

SECTION 15 REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1

01-2A=IARC Group 2A

01-2B=IARC Group 2B

No components of this material were found on the regulatory lists above.

CHEMICAL INVENTORIES:

Revision Number: 1
Revision Date: April 30, 2019

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Techron D Concentrate
SDS : 44281

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: ENCS (Japan), IECSC (China).

SECTION 16 OTHER INFORMATION

REVISION STATEMENT: SECTION 01 - Health Emergency information was modified.

SECTION 03 - Composition information was modified.

SECTION 04 - Immediate Health Effects - Ingestion information was modified.

SECTION 05 - Fire Fighters Protection Measures information was modified.

SECTION 06 - Environmental Precautions information was modified.

SECTION 09 - Physical/Chemical Properties information was modified.

SECTION 12 - Ecological Information information was added.

SECTION 12 - Ecological Information information was deleted.

SECTION 14 - DOT Classification information was modified.

SECTION 15 - Chemical Inventories information was modified.

Revision Date: April 30, 2019

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
	CAS - Chemical Abstract Service Number
ACGIH - American Conference of Governmental Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

Prepared according to the Malaysia Industry Code of Practice on Chemicals Classification and Hazard Communication 201 by the Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, California 94583.

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.