



Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

VARTECH™ Industrial System Cleaner

Product Use: Industrial Oil

Product Number(s): 540616, 540617

Company Identification

Chevron (Thailand) Ltd.

1404 Rama 3 Road

Chongnonsee, Yannawa

Bangkok 10120

Thailand

Transportation Emergency Response

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

Health Emergency

Thailand: +66-2696-4125

Product Information

Product Information: +66-2696-4125

SDS Requests: +66-2696-4125

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION:

- Skin irritation: Category 3.
- Skin Sensitizer: Category 1.
- Acute aquatic toxicant: Category 3.
- Chronic aquatic toxicant: Category 3.



Signal Word: Warning

Health Hazards:

- Causes mild skin irritation (H316).
- May cause an allergic skin reaction (H317).

Environmental Hazards:

- Harmful to aquatic life with long lasting effects (H412).

PRECAUTIONARY STATEMENTS:

Prevention:

- Avoid breathing fume, gas, mist, vapours, or spray (P261).
- Contaminated work clothing should not be allowed out of the workplace (P272).

- Avoid release to the environment (P273).
- Wear protective gloves and protective clothing (P280).

Response:

- IF ON SKIN: Wash with plenty of soap and water (P302+P352).
- Specific treatment (see Notes to Physician on this label) (P321).
- If skin irritation or rash occurs: Get medical advice or attention (P333+P313).
- Take off contaminated clothing and wash it before reuse (P362+P364).

Disposal:

- Dispose of contents and container in accordance with applicable local, regional, national, and international regulations (P501).

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	70 - 99 %wt/wt
Polyether amine	Trade secret	1 - 10 %wt/wt
Polyalkaryl aminoether	Trade secret	1 - 10 %wt/wt
Solvent naphtha (petroleum), light aromatic	64742-95-6	1 - 5 %wt/wt
1,2,4-trimethylbenzene	95-63-6	0.1 - < 2.5 %wt/wt
Polyalkyl arylamine	Trade secret	0.1 - < 1 %wt/wt
Polyalkaryl carbamoyl hydroxyamine	Trade Secret	0.1 - < 1 %wt/wt
Polyalkaryloxy hydroxyurea	Trade secret	0.1 - < 1 %wt/wt

SECTION 4 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 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.

IMMEDIATE HEALTH EFFECTS

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

Skin: Contact with the skin causes irritation. Contact with the skin may cause an allergic skin reaction. Skin contact may cause drying or defatting of the skin. Symptoms may include pain, itching, discoloration, swelling, and blistering.

Ingestion: May be irritating to mouth, throat, and stomach. Symptoms may include pain, nausea, vomiting, and diarrhea.

Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

SECTION 5 FIRE FIGHTING MEASURES

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

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. 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

Protective Measures: Observe all relevant local and international regulations. Eliminate all sources of ignition in vicinity of spilled material. Keep out unnecessary and unprotected personnel. Persons entering the contaminated area to correct the problem or to determine whether it is safe to resume normal activities must comply with all instructions in the Exposure Controls/Personal Protection section.

Spill Management: 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. 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.

Reporting: Report spills to local authorities as appropriate or required.

SECTION 7 HANDLING AND STORAGE

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Precautionary Measures: Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Wash thoroughly after handling.

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.

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 workplace when designing engineering controls and selecting personal protective equipment (PPE). If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, refer to PPE information below.

Factors that affect PPE include, but are not limited to: properties of the chemical, other chemicals which may contact the same PPE, physical requirements (fit & sizing, cut/puncture protection, dexterity, thermal protection, etc.), and potential allergic reactions to the PPE material. It is the responsibility of the user to read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances. Refer to appropriate CEN standards.

ENGINEERING CONTROLS:

Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

Skin Protection: Wear chemical personal protective equipment (PPE) to prevent skin contact. Selection of chemical protective clothing should be performed by an Occupational Hygienist or Safety Professional and be based upon applicable standards (ASTM F739 or EN 374). Using chemical PPE depends upon operations conducted and may include chemical gloves, boots, chemical apron, chemical suit, and complete facial protection. **Refer to PPE manufacturers to obtain breakthrough time information to determine how long PPE can be used before it needs to be replaced.** Unless specific glove manufacturer data indicates otherwise, the below table is based upon available industry data to assist in the glove selection process and is intended to be used as reference only.

Chemical Glove Material	Thickness (mm)	Typical Breakthrough Time (minutes)
Nitrile	0.8	5
Polyvinyl Chloride (PVC)	1.1	13
Viton Butyl	0.3	120

Respiratory Protection: A site-specific risk assessment should be conducted by an Occupational Hygienist or a Safety Professional to determine the type and use of respiratory protective equipment. When a site-specific risk assessment determines that respiratory protection is required, use an approved respirator such as:

Air purifying respirator -

If an oil mist is generated (dependent upon job activity): use both an organic vapor cartridge & particulate filter (AP3 filter per EN 529:2005).

Refer to respirator manufacturers to obtain service life of cartridge / filter.

Refer to EN 529:2005, USA OSHA 1910.134, and/or other applicable local/regional/national/international standards for regulatory requirements.

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: Clear

Physical State: Liquid

Odor: Hydrocarbon odor

Odor Threshold: No data available

pH: Not Applicable

Vapor Pressure: No data available

Relative Vapor Density: No data available

Boiling Point: No data available

Solubility: Insoluble in water.

Freezing Point: No data available

Melting Point: No data available

Particle Characteristics: Not applicable
Density: 0.8803 kg/l @ 15°C (59°F) (Typical)
Kinematic Viscosity: 47.51 mm²/s @ 40°C (104°F) (Minimum)
Coefficient of Therm. Expansion / °F: No data available
Evaporation Rate: No data available
Partition coefficient n-octanol/water (logarithmic value): No data available

FLAMMABLE PROPERTIES:

Flashpoint: (Cleveland Open Cup) 128 °C (262 °F) (Minimum)
Autoignition: No data available
Flammability (Explosive) Limits (% by volume in air): Lower: No data available Upper: No data available

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

Eye Irritation: The material is not considered an eye irritant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Acute Dermal Toxicity: The material is not considered a dermal toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Skin Irritation: This material causes mild skin irritation. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Skin Sensitization: The material may cause an allergic skin reaction. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Acute Oral Toxicity: The material is not considered an oral toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Acute Inhalation Toxicity: The material is not considered an inhalation toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Acute Toxicity Estimate: Not Determined

Germ Cell Mutagenicity: The material is not considered a mutagen. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Carcinogenicity: The material is not considered a carcinogen. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Reproductive Toxicity: The material is not considered a reproductive toxicant. The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Specific Target Organ Toxicity - Single Exposure: The material is not considered a target organ toxicant (single exposure). The product has not been tested. The statement is based on evaluation of

data for similar materials or product components.

Specific Target Organ Toxicity - Repeated Exposure: The material is not considered a target organ toxicant (repeated exposure). The product has not been tested. The statement is based on evaluation of data for similar materials or product components.

Aspiration Hazard: The material is not considered an aspiration hazard.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

COMPONENT: Light Aromatic Solvent Naphtha (CAS 64742-95-6, also described as High-Flash Aromatic Naphtha, Type I, as defined by ASTM D-3734). **GENETIC TOXICITY:** No evidence of genetic toxicity was observed in the following tests: Salmonella typhimurium reverse mutation assay (Ames test), in vitro Chinese Hamster Ovary (CHO) cell HGPRT mutation assay, in vitro Chinese Hamster Ovary (CHO) cell chromosomal aberration assay, in vitro Chinese Hamster Ovary (CHO) cell sister chromatid exchange assay, and in vivo rat bone marrow chromosome aberration assay. **SUBCHRONIC TOXICITY:** In a 13-week rat inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day, 5 days/week, no target organ toxicity including neurotoxicity was observed at any dose level. Slight general systemic toxicity (decreased body weight gain) was observed at 1500 ppm.

DEVELOPMENTAL TOXICITY: In a mouse inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day on gestation days 6-15, no signs of maternal toxicity or developmental toxicity were observed at 100 ppm. At 500 ppm, maternal toxicity (decreased body weight gain) and developmental toxicity (decreased fetal body weight) were observed. Severe maternal toxicity (44% mortality, decreased body weight gain, clinical signs of toxicity) and developmental toxicity (decreased number of live fetuses per litter, increased post-implantation losses per dam, decreased fetal body weights, delayed ossification, cleft palate) were observed at 1500 ppm. In a rat inhalation study using dose levels of 600, 1000, and 2000 mg/m³ for 24 hours/day on gestation days 7-15, signs of maternal toxicity (decreased body weight gain) were observed at all dose levels. At 600 mg/m³, no signs of fetal or developmental toxicity were observed. Signs of fetal toxicity (decreased male fetal body weight) and developmental toxicity (delayed ossification) were observed at 1000 and 2000 mg/m³. **REPRODUCTIVE TOXICITY:** In a rat 3-generation inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day, 5 days/week, no signs of general systemic or reproductive toxicity were observed at 100 ppm. At 500 ppm, slight parental toxicity (decreased body weight gain) and postnatal toxicity (decreased pup body weight) were observed, but reproductive parameters were not affected. Severe parental toxicity (mortality, decreased body weight gain, clinical signs of toxicity) and postnatal toxicity (decreased pup body weight) were observed at 1500 ppm, but reproductive parameters were not affected.

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.

Partition coefficient n-octanol/water (logarithmic value): No data available

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

SECTION 14 TRANSPORT 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.

UN Shipping Description: NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER THE UNITED NATIONS MODEL REGULATIONS/RECOMMENDATIONS

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable

SECTION 15 REGULATORY INFORMATION

REGULATORY LISTS SEARCHED:

01-1=IARC Group 1

01-2A=IARC Group 2A

01-2B=IARC Group 2B

02-1=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.1)

02-2=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.2)

02-3=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.3)

02-4=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.4)

02-5=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.5)

02-6=Thailand - Hazardous Substances - Department of Industrial Works Responsible Substances (Annex 5.6)

The following components of this material are found on the regulatory lists indicated.

1,2,4-trimethylbenzene

02-6

CHEMICAL INVENTORIES:

All components comply with the following chemical inventory requirements: AIIC (Australia), DSL (Canada), ENCS (Japan), TSCA (United States).

One or more components does not comply with the following chemical inventory requirements: IECSC

(China), KECI (Korea), NZLoC (New Zealand), PICCS (Philippines), TCSI (Taiwan).

SECTION 16 OTHER INFORMATION

REVISION STATEMENT: SECTION 01 - Product Code(s) information was modified.
SECTION 01 - Transportation Emergency Response information was modified.
SECTION 02 - Precautionary Statements information was modified.
SECTION 03 - Composition information was modified.
SECTION 05 - Fire Fighters Protection Measures information was modified.
SECTION 06 - Personal Precautions, Protective Equipment and Emergency Procedures information was modified.
SECTION 08 - Personal Protective Equipment information was deleted.
SECTION 08 - Personal Protective Equipment information was modified.
SECTION 08 - Respiratory Protection information was added.
SECTION 08 - Respiratory Protection information was deleted.
SECTION 08 - Respiratory Protection information was modified.
SECTION 08 - Skin Protection information was modified.
SECTION 11 - Carcinogenicity information was added.
SECTION 11 - Germ Cell Mutagenicity information was added.
SECTION 11 - Reproductive Toxicity information was added.
SECTION 11 - Specific Target Organ Toxicity - Repeated Exposure information was added.
SECTION 11 - Specific Target Organ Toxicity - Single Exposure information was added.
SECTION 11 - Toxicological Information information was added.
SECTION 11 - Toxicological Information information was modified.
SECTION 12 - Ecological Information information was added.
SECTION 12 - Ecological Information information was deleted.
SECTION 14 - IMO Classification information was added.
SECTION 15 - Chemical Inventories information was added.
SECTION 15 - Chemical Inventories information was deleted.
SECTION 15 - Chemical Inventories information was modified.
SECTION 15 - Regulatory Information information was added.

Revision Date: August 20, 2025

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	SDS - Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	

Prepared according to the Hazard Classification and Communication System of Hazardous Substances B.E. 2555 by Chevron.

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application. Users should seek additional guidance if necessary.