

### TrusTec<sup>™</sup> Diesel Reference Fuel T-34

Version 2.1

Revision Date 2024-12-14

MSDS number: AA00974-000000616

Product Name	:	TrusTec™ Diesel Reference Fuel T-34
Material		1024272, 1108916, 1024276, 1024273, 1024274, 1024275, 1032194
Recommended use of the product	:	Reference Fuel
Restrictions on use	:	None known.
Address	:	Chevron Phillips Chemical Company LP Specialty Chemicals 10001 Six Pines Drive The Woodlands, TX 77380
Address	:	CHEVRON PHILLIPS CHEMICALS ASIA PTE. LTD. C/O DONG WOO CORPORATION #B-2601, JEONGJAIL-RO, BUNDANG-GU, SEONGNAMI-SI, GYEONGGI-DO, 13557 SOUTH KOREA Telephone no.: +612-9186-1132
Emergency telephone:		
Mexico CHEMTREC 01-8 South America SOS-Cote Argentina: +(54)-1159839 EUROPE: BIG +32.14.58	iona 00 o 12 9 300- ec Ir 9431 3454 3 43	l) r 703.527.3887(int'l) 186 1132) China: 0532 8388 9090 681-9531 (24 hours) nside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600 l 5 (phone) or +32.14583516 (telefax) (24 hours/day, 7 days/week)
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Bulgaria: +359 2 9154 233 Croatia: +3851 2348 342 (24 hours/day, 7 days/week) Cyprus: 1401 Czech Republic: Toxicological Information Center +420 224 919 293, +420 224 915 402 Denmark: Danish Poison Center (Giftlinien): +45 8212 1212 Estonia: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Finland: 0800 147 111 09 471 977 (24 hours/day) France: ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (24 hours/day, 7 days/week) Germany: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Greece: (0030) 2107793777 (24 hours/day, 7 days/week) Hungary: +36-80-201-199 (24 hours/day, 7 days/week) Iceland: 543 2222 (24 hours/day, 7 days/week) Ireland: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Italy: POISON CENTER MILAN – Azienda Ospedaliera Niguarda Ca` Grande Tel. +39 02 66101029; POISON CENTER ROME - Policlinico "Agostino Gemelli", Servizio di tossicologia clinica Tel. +39 06 3054343; POISON CENTER ROME - Ospedale Pediatrico Bambino Gesù Tel. +39 06 68593726; POISON CENTER ROME – Policlinico "Umberto I" Tel. +39 06 4997 8000; POISON CENTER FOGGIA – Azienda Ospedaliera Universitaria Riuniti Tel. +39 0881 732326; POISON CENTER NAPLES – Azienda Ospedaliera "Antonio Cardarelli" Tel. +39 081 7472870; POISON CENTER FLORENCE – Azienda Ospedaliera universitaria Careggi Tel. +39 055 7947819: POISON CENTER PAVIA - IRCCS Fondazione Salvatore Maugeri Tel. +39 0382 24444; POISON CENTER BERGAMO – Azienda Ospedaliera "Papa Giovanni XXIII" Tel. 800 883 300; POISON CENTER VERONA - Azienda Ospedaliera Universitaria integrata Tel. 800 011 858: Latvia: State Fire and Rescue Service, phone number: 112; Toxicology and Sepsis Clinic Poisoning and Drug Information Center, Hipokrāta 2, Riga, Latvia, LV-1038, phone number +371 67042473. (24 hours.) Liechtenstein: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Lithuania: +370 (85) 2362052 Luxembourg: (+352) 8002 5500 (24 hours/day, 7 days/week) Malta: +356 2395 2000 The Netherlands: NVIC: +31 (0)88 755 8000 Norway: 22 59 13 00 (24 hours/day, 7 days/week) Poland: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Portugal: CIAV phone number: +351 800 250 250 Romania: +40213183606 Slovakia: +421 2 5477 4166 Slovenia: Phone number: 112 Spain: National Emergency Telephone Number of Spanish Poison Centre: +34 91 562 04 20 (24 hours/day, 7 days/week) Sweden: 112 – ask for Poisons Information Responsible Department : Product Safety and Toxicology Group E-mail address SDS@CPChem.com Website www.CPChem.com Appointees 회사명: 리이치24시코리아㈜. 주소: 서울특별시 강남구 강남대로 94길 34,4층 전화: +82-02-6245-1610 Number:100000100097 2/19

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#### **SECTION 2: Hazards identification**

**Hazard classification** 

Standards for classification and labeling of chemical substances and material safety data sheet (ministry of employment and labor public notice No. 2020-130)

Classification

Flammable liquids, Category 3
 Acute toxicity, Category 4, Inhalation
 Skin corrosion/irritation, Category 2
 Carcinogenicity, Category 2
 Specific target organ toxicity - repeated exposure, Category 2, Liver, Blood, thymus
 Aspiration hazard, Category 1
 Long-term (chronic) aquatic hazard, Category 2

Warning label elements including precautionary statements

Symbol(s)

Symbol(s)	
Signal Word	: Danger
Hazard Statements	<ul> <li>H226: Flammable liquid and vapor.</li> <li>H304: May be fatal if swallowed and enters airways.</li> <li>H315: Causes skin irritation.</li> <li>H332: Harmful if inhaled.</li> <li>H351: Suspected of causing cancer.</li> <li>H373: May cause damage to organs (Liver, Blood, thymus) through prolonged or repeated exposure.</li> <li>H411: Toxic to aquatic life with long lasting effects.</li> </ul>
Precautionary Statements	<ul> <li>Prevention:</li> <li>P201: Obtain special instructions before use.</li> <li>P202: Do not handle until all safety precautions have been read and understood.</li> <li>P210: Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.</li> <li>P233: Keep container tightly closed.</li> <li>P240: Ground/bond container and receiving equipment.</li> <li>P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment.</li> <li>P242: Use only non-sparking tools.</li> <li>P243: Take precautionary measures against static discharge.</li> <li>P260: Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.</li> <li>P264: Wash the contact area thoroughly after handling.</li> <li>P273: Avoid release to the environment.</li> <li>P280: Wear protective gloves/ protective clothing/ eye</li> </ul>
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	Response:           P301 + P31           CENTER or           P303 + P36           immediately           shower.           P308 + P31:           attention.           P321:           Speinstructions           P331:         Do I           P362 + P36:           before reuse           P370 + P37:           alcohol-resis           P391:         Coll           Storage:           P403 + P23:           Disposal:	doctor/ physiciar 1 + P353: IF O all contaminated 3: IF exposed c cific treatment (so on this label). NOT induce vomi 4: Take off cont e. 8: In case of fire stant foam to extin ect spillage. 5: Store in a we	N SKIN (or hair): Ta clothing. Rinse skir or concerned: Get m ee supplemental firs ting. taminated clothing a e: Use dry sand, dry	ke off with water/ edical advice/ at aid and wash it chemical or Keep cool.
Other hazards which d not result in classificati				
not result in classificati		ents		
not result in classificati	ion			
not result in classificati TION 3: Composition Synonyms Molecular formula	ion /information on ingredio : Diesel Refere : Mixture	nce Fuel T		
not result in classificati	ion /information on ingredio : Diesel Refere		Concentration	KECI Number
not result in classificati TION 3: Composition Synonyms Molecular formula	ion /information on ingredio : Diesel Refere : Mixture	nce Fuel T	Concentration 100%	
not result in classificati TION 3: Composition Synonyms Molecular formula Common name	ion /information on ingredio : Diesel Refere : Mixture Synonyms	nce Fuel T CAS-No.		Number
not result in classificati TION 3: Composition Synonyms <u>Molecular formula</u> Common name Diesel fuel, no. 2	ion /information on ingredia : Diesel Refere : Mixture Synonyms Fuels, diesel, no. 2	nce Fuel T CAS-No. 68476-34-6	100%	Number KE-17287
not result in classificati TION 3: Composition Synonyms <u>Molecular formula</u> Common name Diesel fuel, no. 2	ion /information on ingredie  : Diesel Refere : Mixture Synonyms Fuels, diesel, no. 2 naphthalene	nce Fuel T CAS-No. 68476-34-6	100%	Number KE-17287
not result in classificati TION 3: Composition Synonyms <u>Molecular formula</u> Common name Diesel fuel, no. 2 Naphthalene	ion /information on ingredie  : Diesel Refere : Mixture Synonyms Fuels, diesel, no. 2 naphthalene	nce Fuel T CAS-No. 68476-34-6	100%	Number KE-17287
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General advice	:	Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.
In case of eye contact	:	Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
In case of skin contact	:	If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
If inhaled	:	Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.
If swallowed	:	Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.
Other cautions for Doctors		
Symptoms	:	No information available.
Risks	:	No information available.
Treatment	:	No information available.
TION 5: Firefighting measu	res	
Flash point	:	77.44°C (171.39°F) Method: closed cup
Autoignition temperature	:	No data available
Suitable extinguishing media	:	Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.
Unsuitable extinguishing media	:	High volume water jet.
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment for fire-fighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed

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	containers.	
Fire and explosion protection	: Do not spray on a naked flame or any incandescent material Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.	•
Hazardous decomposition products	: Hydrocarbons. Carbon oxides.	
TION 6: Accidental release	neasures	
Personal precautions	: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.	v
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.	
Methods for cleaning up	: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).	
TION 7: Handling and stora	je	
Handling		
Advice on safe handling	: Avoid formation of aerosol. Do not breathe vapors/dust. Average obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures again static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance willocal and national regulations.	d st
Advice on protection against fire and explosion	: Do not spray on a naked flame or any incandescent material Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.	
Secure storage		
Requirements for storage areas and containers	: No smoking. Keep container tightly closed in a dry and well- ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.	
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Observe label precautions. Electrical install materials must comply with the technologica Uses advised against : None known.
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: Reference Fuel

#### **SECTION 8: Exposure controls/personal protection**

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Components		Basis	Value	Control parameters	Note
Naphthalene		KR OEL	TWA	10 ppm,	carc 2, Skin,
		KR OEL	STEL	15 ppm,	carc 2, Skin,
carc 2	Limited evidence of carcinog	genicity in humans or ar	nimals, which is not sufficie	ently convincing to place the s	substance in Category 1
Skin	Substances designated by "	Skin' may be absorbed	into the bloodstream throu	ah the skin, mucous membra	ne and eve and

Skin Substances designated by 'Skin' may be absorbed into the bloodstream through the skin, mucous membrane and eye and contribute to the overall effect. (Skin notation does not apply to the skin irritant)

#### Chemical exposure standards, biological exposure standards, etc.

Adequate ventilation to control airborned concentrations below the exposure guidelines/limits. 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.

#### Personal protective equipment

Respiratory protection	:	If ventilation or other engineering controls are not adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure, a supplied-air NIOSH approved respirator may be appropriate. If exposure to harmful levels of airborne material may occur, a NIOSH approved respirator that provides protection may be appropriate, such as:. Air-Purifying Respirator for Organic Vapors. A positive pressure, air- supplying respirator may be appropriate if there is potential for uncontrolled release, aerosolization, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.
Eye protection	:	Eye wash bottle with pure water. Tightly fitting safety goggles.
Hand protection	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin and body protection	:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate:. Flame retardant
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	antistatic protective clothing. Workers should wear antistatic footwear.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.
TION 9: Physical and chemi	cal properties
Information on basic physic	cal and chemical properties
Appearance	
Physical state	: liquid at 20°C (68°F) (101.30 kPa)
Color	: Pale yellow, Brown
Odor Odor Threshold	: Mild : No data available
рН	: Not applicable
Pour point	: -7.2°C (19.0°F) Method: ASTM D97
Melting point/freezing point	No data available
Boiling point/boiling range	: 198-364°C (388-687°F) Method: ASTM D 86
Flash point	: 77.44°C (171.39°F) Method: closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapor pressure	: 0.10 kPa at 40°C (104°F)
Solubility	: negligible
Relative density	: 0.809 at 21 °C (70 °F), ASTM D 1298
Density	: 0.8092 g/cm3
Bulk density	: 6.75 L/G
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Information on exposure rou Acute oral toxicity	Ites
TION 11: Toxicological inform	nation
Other data	: No decomposition if stored and applied as directed.
Hazardous decomposition products	: Hydrocarbons Carbon oxides
Thermal decomposition	: No data available
Materials to avoid	: May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Conditions to avoid	: Heat, flames and sparks.
	Hazardous reactions: Vapors may form explosive mixture with air.
Hazardous reactions	: Hazardous reactions: Hazardous polymerization does not occur.
Possibility of hazardous rea	ctions
Chemical stability	: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Reactivity	: Stable under recommended storage conditions.
TION 10: Stability and reactiv	vity
-	
Molecular weight	: Not applicable
Viscosity, kinematic	: 3.103 cSt at 40°C (104°F)
Decomposition temperature	: No data available
octanol/water Autoignition temperature	: No data available
Partition coefficient: n-	: No data available

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Diesel fuel, no. 2	: LD50: > 5,000 mg/kg Species: Rat Sex: male and female Method: OECD Test Guideline 401
Naphthalene	LD50: 500 mg/kg Method: Converted acute toxicity point estimate
Acute inhalation toxicity	/
Diesel fuel, no. 2	: LC50: 4.1 mg/l Exposure time: 4 h Species: Rat Sex: male and female Test atmosphere: dust/mist Method: OECD Test Guideline 403 Test substance: yes
Acute dermal toxicity	
Diesel fuel, no. 2	: LD50 Dermal: > 4,300 mg/kg Species: Rabbit Sex: male and female Test substance: yes
TrusTec™ Diesel Refere Skin corrosion or irritati	
Skin corrosion or irritati TrusTec™ Diesel Refere	ion : Skin irritation
Skin corrosion or irritati TrusTec™ Diesel Refere Eye corrosion or irritatio TrusTec™ Diesel Refere	<ul> <li>ion : Skin irritation</li> <li>ence Fuel T-34</li> <li>on : Vapors may cause irritation to the eyes, respiratory system and the skin.</li> </ul>
Skin corrosion or irritati TrusTec™ Diesel Refere Eye corrosion or irritatio TrusTec™ Diesel Refere	<ul> <li>Skin irritation</li> <li>Skin irritation</li> <li>Proce Fuel T-34</li> <li>Vapors may cause irritation to the eyes, respiratory system and the skin.</li> <li>Proce Fuel T-34</li> <li>Shin in the cause sensitization on laboratory animals.</li> </ul>
Skin corrosion or irritati TrusTec <sup>™</sup> Diesel Refere Eye corrosion or irritatio TrusTec <sup>™</sup> Diesel Refere Respiratory Sensitization TrusTec <sup>™</sup> Diesel Refere	<ul> <li>Skin irritation</li> <li>Skin irritation</li> <li>Proce Fuel T-34</li> <li>Vapors may cause irritation to the eyes, respiratory system and the skin.</li> <li>Proce Fuel T-34</li> <li>Shin in the cause sensitization on laboratory animals.</li> </ul>
Skin corrosion or irritati TrusTec <sup>™</sup> Diesel Refere Eye corrosion or irritatio TrusTec <sup>™</sup> Diesel Refere Respiratory Sensitization TrusTec <sup>™</sup> Diesel Refere Skin sensitization	<ul> <li>Skin irritation</li> <li>Skin irritation</li> <li>Proce Fuel T-34</li> <li>Vapors may cause irritation to the eyes, respiratory system and the skin.</li> <li>Proce Fuel T-34</li> <li>Shin in the cause sensitization on laboratory animals.</li> </ul>
Skin corrosion or irritati TrusTec <sup>™</sup> Diesel Refere Eye corrosion or irritatio TrusTec <sup>™</sup> Diesel Refere Respiratory Sensitization TrusTec <sup>™</sup> Diesel Refere Skin sensitization Carcinogenicity	<ul> <li>ion : Skin irritation</li> <li>ence Fuel T-34</li> <li>on : Vapors may cause irritation to the eyes, respiratory system and the skin.</li> <li>ence Fuel T-34</li> <li>on : Did not cause sensitization on laboratory animals.</li> <li>ence Fuel T-34</li> <li>ence Fuel T-34</li> <li>: Species: Mouse Sex: male Dose: 0, 25 ul Exposure time: lifetime Number of exposures: 3 times/wk</li> </ul>

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	Number of exposures: 6 hours/day, 5 days/week Test substance: yes Print Date: No information available. Remarks: No evidence of carcinogenicity Species: Mouse Sex: female Dose: 10, 30 ppm Exposure time: 105 weeks Number of exposures: 6 hours/day, 5 days/week Test substance: yes Print Date: No information available. Remarks: increased incidence of alveolar/bronchiolar adenomas Species: Rat Sex: male and female Dose: 10, 30, 60 ppm Exposure time: 105 weeks Number of exposures: 6 hours/day, 5 days/week Test substance: yes Print Date: No information available. Remarks: nose respiratory epithelial adenoma, increased incidence of olfactory neuroblastomas
	······································
Repeated dose toxicity	
Diesel fuel, no. 2	<ul> <li>Species: Rat, Male and female Sex: Male and female Application Route: Dermal Dose: 0, 30, 125, 500 mg/kg Exposure time: 13 wks Number of exposures: daily, 5 days/week NOEL: 30 mg/kg Method: OECD Guideline 411 Target Organs: Thymus, Liver, Bone marrow Information given is based on data obtained from similar substances.</li> </ul>
	Species: Rat, Male and female Sex: Male and female Application Route: inhalation (dust/mist/fume) Dose: 0, 0.35, 0.88, 1.71 mg/l Exposure time: 13 wks Number of exposures: Twice/wk NOEL: > 1.71 mg/l Method: OECD Guideline 413
Germ cell mutagenicity (in vitro	o)
Diesel fuel, no. 2	: Test Type: Ames test Result: positive
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	Test Type: Mouse lymphoma assay Result: negative
Naphthalene	Test Type: Ames test Result: negative
	Test Type: Sister Chromatid Exchange Assay Result: negative
	Test Type: Unscheduled DNA synthesis assay Result: negative
Germ cell mutagenicity (in viv	o)
Diesel fuel, no. 2	: Test Type: Dominant lethal assay Species: Mouse Dose: 100 or 400 ppm Result: negative
Naphthalene	Test Type: Mouse micronucleus assay Result: negative
Developmental Toxicity	
Diesel fuel, no. 2	<ul> <li>Species: Rat Application Route: Inhalation Dose: 0, 86.9, 408.8 ppm Number of exposures: 6 h/d Test period: GD 6-15 Method: OECD Guideline 414 NOAEL Teratogenicity: 408.8 ppm NOAEL Maternal: 408.8 ppm Information given is based on data obtained from similar substances.</li> </ul>
	Species: Rat Application Route: Dermal Dose: 30, 125, 500, 1000 mg/kg Exposure time: daily Test period: GD 0-20 Method: OECD Guideline 414 NOAEL Teratogenicity: 125 mg/kg Information given is based on data obtained from similar substances.
Naphthalene	Species: Rabbit Application Route: oral gavage Dose: 40, 200, 400 mg/kg Test period: 29 d, GD 6-18 NOAEL Teratogenicity: 400 mg/kg
Specific Target Organ Toxicity (Single Exposure)	
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	No data available
Specific Target Organ Toxicity (Repeated Exposure)	
	No data available
TrusTec™ Diesel Refere Aspiration toxicity	
CMR effects	
Diesel fuel, no. 2	: Carcinogenicity: Limited evidence of carcinogenicity in animal studies
	Teratogenicity: Animal testing did not show any effects on fetal development.
Naphthalene	Carcinogenicity: Limited evidence of carcinogenicity in animal studies
TrusTec™ Diesel Refere Further information	
	: Solvents may degrease the skin.
Further information	: Solvents may degrease the skin.
Further information	: Solvents may degrease the skin.
Further information TION 12: Ecological info Ecological Toxicity	: Solvents may degrease the skin.
Further information TION 12: Ecological info Ecological Toxicity Toxicity to fish	<ul> <li>Solvents may degrease the skin.</li> <li>srmation</li> <li>LL50: 21 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout)</li> </ul>
Further information TION 12: Ecological info Ecological Toxicity Toxicity to fish Diesel fuel, no. 2 Naphthalene	: Solvents may degrease the skin. <b>frmation</b> : LL50: 21 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) semi-static test Method: OECD Test Guideline 203 LC50: 3.2 mg/l Exposure time: 96 h
Further information TION 12: Ecological info Ecological Toxicity Toxicity to fish Diesel fuel, no. 2 Naphthalene	: Solvents may degrease the skin. <b>rmation</b> : LL50: 21 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) semi-static test Method: OECD Test Guideline 203 LC50: 3.2 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow)

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Naphthalene	LC50: 2.16 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)
Toxicity to algae	
Diesel fuel, no. 2	<ul> <li>ErL50: 22 mg/l</li> <li>Exposure time: 72 h</li> <li>Species: Raphidocellus subcapitata (algae)</li> <li>static test Analytical monitoring: no</li> <li>Method: OECD Test Guideline 201</li> </ul>
Naphthalene	EC50: 2.96 mg/l Exposure time: 48 h Species: Selenastrum capricornutum (algae)
<b>Persistence and degradability</b> Diesel fuel, no. 2	<ul> <li>aerobic</li> <li>Result: Not readily biodegradable.</li> <li>57.5 %</li> <li>Testing period: 28 d</li> <li>Method: OECD Test Guideline 301F</li> </ul>
Bioaccumulative	
Diesel fuel, no. 2	: Accumulation in aquatic organisms is expected.
Mobility	
Diesel fuel, no. 2	: No data available
Results of PBT assessment Diesel fuel, no. 2	: Non-classified PBT substance, Non-classified vPvB substance
Other adverse effects	: Toxic to aquatic life with long lasting effects.
Ecotoxicology Assessment	
Short-term (acute) aquatic	: Toxic to aquatic life.
hazard Long-term (chronic) aquatic hazard	: Toxic to aquatic life with long lasting effects.
SECTION 13: Disposal considerati	ions
	tains only to the product as shipped.
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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 US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Disposal method	: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Disposal precaution	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

#### **SECTION 14: Transport information**

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition). Consult the appropriate domestic or international mode-specific and quantity-specific

Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

UN Number	•	UN1202
UN Product Shipping Name	•	DIESEL FUEL
Hazard Class	:	3
Packing Group	:	III - Less Hazardous Properties
Marine Pollutant	•	Yes
Special Safety Measures on Mode of Transport	•	No data available

#### US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)

UN1202, DIESEL FUEL, COMBUSTIBLE LIQUID, III

#### IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DIESEL FUEL), 9, III, (77.44°C), MARINE POLLUTANT, (DIESEL FUEL)

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#### IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DIESEL FUEL), 9, III

#### ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))

UN1202, DIESEL FUEL, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS, (DIESEL FUEL)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

UN1202, DIESEL FUEL, 3, III, ENVIRONMENTALLY HAZARDOUS, (DIESEL FUEL)

# ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)

UN1202, DIESEL FUEL, 3, III, ENVIRONMENTALLY HAZARDOUS, (DIESEL FUEL)

#### Maritime transport in bulk according to IMO instruments

#### National legislation

Regulation under the Occupational Safety and Health Act

A Material Safety Datasheet (MSDS) for this product is not required according to article 41 of the ISHA.

Regulation		Chemical name	Threshold limits
Harmful Substances Prohibited from Manufacturing	•••	Not applicable	
Harmful Substances Required Permission for Manufacture	••	Not applicable	

Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control ActRegulationChemical nameThreshold

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	limite
Toxic Chemicals	: Not applicable
Prohibited Chemicals	: Not applicable
Restricted Chemicals	: Not applicable
Toxic Release Inventory	: naphthalene >= 0.1 %
Dangerous Substances Safety Dangerous Substances Safety Management Act	<b>Management Act</b> : Flammable liquids, Type 3 petroleums, Water insoluble liquid
Regulations by the Waste Management Act	: Not applicable
Regulations by other domesti Europe REACH	c and foreign laws This product is in full compliance according to REACH regulation 1907/2006/EC.
Switzerland CH INV United States of America (USA) TSCA Canada DSL	<ul> <li>On the inventory, or in compliance with the inventory</li> <li>On or in compliance with the active portion of the TSCA inventory</li> <li>All components of this product are on the Canadian</li> </ul>
Australia AIIC Japan ENCS New Zealand NZIoC Korea KECI	<ul> <li>DSL</li> <li>On the inventory, or in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> <li>All substances in this product were registered, notified to be registered, or exempted from registration by CPChem through an Only Representative according to K-REACH regulations. Importation of this product is permitted if the Korean Importer of Record was included on CPChem's notifications or if the Importer of Record themselves notified the substances.</li> </ul>
Philippines PICCS Taiwan TCSI China IECSC	<ul> <li>On the inventory, or in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> </ul>
Other regulations	: No data available
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### TrusTec<sup>™</sup> Diesel Reference Fuel T-34

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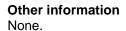
Revision Date 2024-12-14

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#### **SECTION 16: Other information**

Source of data	:	Korea. GHS based classification	
Date of initial writing	:	2024-11-09	
Revision number	:	1	
Last revision date	:	2029-11-09	
NFPA Classification	:	Health Hazard: 2 Fire Hazard: 2 Reactivity Hazard: 0	2



Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Key or legend to abbreviations and acronyms used in the safety data sheet				
American Conference of	LD50	Lethal Dose 50%		
Government Industrial Hygienists				
Australian Inventory of Industrial	LOAEL	Lowest Observed Adverse Effect		
Chemicals		Level		
Canada, Domestic Substances	NFPA	National Fire Protection Agency		
List				
Canada, Non-Domestic	NIOSH	National Institute for Occupational		
Substances List		Safety & Health		
Central Nervous System	NTP	National Toxicology Program		
Chemical Abstract Service	NZIoC	New Zealand Inventory of		
		Chemicals		
Effective Concentration	NOAEL	No Observable Adverse Effect		
		Level		
	American Conference of Government Industrial HygienistsAustralian Inventory of Industrial ChemicalsCanada, Domestic Substances ListCanada, Non-Domestic Substances ListCentral Nervous System Chemical Abstract Service	American Conference of Government Industrial HygienistsLD50Australian Inventory of Industrial ChemicalsLOAELChemicalsNFPAListNIOSHSubstances ListNIOSHCentral Nervous SystemNTPChemical Abstract ServiceNZIoC		

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EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure	OSHA	Occupational Safety & Health
	Scenario Tool		Administration
EOSCA	European Oilfield Specialty	PEL	Permissible Exposure Limit
	Chemicals Association		
EINECS	European Inventory of Existing	PICCS	Philippines Inventory of
	Chemical Substances		Commercial Chemical Substances
MAK	Germany Maximum Concentration	PRNT	Presumed Not Toxic
	Values		
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery
			Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and
			Reauthorization Act.
IARC	International Agency for Research	TLV	Threshold Limit Value
	on Cancer		
IECSC	Inventory of Existing Chemical	TWA	Time Weighted Average
	Substances in China		
ENCS	Japan, Inventory of Existing and	TSCA	Toxic Substance Control Act
	New Chemical Substances		
KECI	Korea, Existing Chemical	UVCB	Unknown or Variable Composition,
	Inventory		Complex Reaction Products, and
			Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials
			Information System
LC50	Lethal Concentration 50%	ATE	Acute toxicity estimate

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