SAFETY DATA SHEET

PRF Octane No. Blends 80-98

Version 1.12  Revision Date 2019-10-14

according to GB/T 16483 and GB/T 17519

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product information

Product Name: PRF Octane No. Blends 80-98

Material: 1024452, 1024451, 1024450, 1024448, 1024447, 1024446, 1024444, 1024443, 1024442, 1024440, 1024439, 1024438, 1024436, 1024435, 1024434, 1024432, 1024431, 1024430, 1024428, 1024427, 1024426, 1024424, 1024423, 1024422, 1024420, 1024419, 1024418, 1024416, 1024415, 1024414, 1024412, 1024411, 1024410, 1024408, 1024407, 1024406, 1024404, 1024403, 1024402, 1024400, 1024399, 1024398, 1024396, 1024395, 1024394, 1024392, 1024391, 1024390, 1024388, 1024384, 1024383, 1024382, 1024381, 1024380, 1024379, 1024378, 1024376, 1024372, 1024341, 1024340, 1024339, 1024338, 1024387, 1024453, 1024449, 1024445, 1024441, 1024437, 1024433, 1024429, 1024425, 1024421, 1024417, 1024413, 1024409, 1024405, 1024401, 1024397, 1024393, 1024389, 1024385, 1024377, 1024375, 1024374

Use: Reference Fuel

Company: Chevron Phillips Chemical Company LP
Specialty Chemicals
10001 Six Pines Drive
The Woodlands, TX 77380

Local: Chevron Phillips Chemicals (Shanghai) Corporation
Room 1810-1812, Shanghai Mart,
2299 Yan An Road (W),
Shanghai, PRC 200336

Emergency telephone:

Health:
866.442.9628 (North America)
1.832.813.4984 (International)

Transport:
CHEMTREC 800.424.9300 or 703.527.3887(int'l)
Asia: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Mexico CHEMTREC 01-800-681-9531 (24 hours)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

SDS Number:1000000014260
SECTION 2: Hazards identification

Classification of the substance or mixture
GHS Classification and Labeling: Follow GB 13690, GB 15258 and GB 30000.2 to GB 30000.29 (GHS 2011)

Emergency Overview

Danger

Physical state: Liquid  Color: Colorless  Odor: gasoline-like
Hazard: Highly flammable liquid and vapor. Causes skin irritation. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Classification

- Flammable liquids, Category 2
- Skin corrosion/irritation, Category 2
- Specific target organ toxicity - single exposure, Category 3
- Narcotic effects
- Aspiration hazard, Category 1
- Short-term (acute) aquatic hazard, Category 1
- Long-term (chronic) aquatic hazard, Category 1

Labeling

Symbol(s):  
Signal Word: Danger

Precautionary Statements: Prevention:
- P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P233: Keep container tightly closed.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting/equipment.
- P242: Use only non-sparking tools.
- P243: Take precautionary measures against static discharge.
- P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
- P273: Avoid release to the environment.
P280: Wear protective gloves/ eye protection/ face protection.  
Response:  
P280 + P331: Do NOT induce vomiting.  
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.  
P312: Call a POISON CENTER/doctor if you feel unwell.  
P331: Do NOT induce vomiting.  
P362 + P364: Take off contaminated clothing and wash it before reuse.  
P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P391: Collect spillage.  
Storage:  
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235: Store in a well-ventilated place. Keep cool.  
P405: Store locked up.  
Disposal:  
P501: Dispose of contents/ container to an approved waste disposal plant.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. / EINECS-No.</th>
<th>Concentration [wt%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane (Isooctane)</td>
<td>540-84-1</td>
<td>80 - 98</td>
</tr>
<tr>
<td>n-Heptane</td>
<td>142-82-5</td>
<td>0 - 20</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

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.

If inhaled: Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.

In case of skin contact: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

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.
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SECTION 5: Firefighting measures

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>-8 °C (18 °F) Method: Tag closed cup</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Suitable extinguishing media</td>
<td>Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
<td>High volume water jet.</td>
</tr>
<tr>
<td>Specific hazards during fire fighting</td>
<td>Do not allow run-off from fire fighting to enter drains or water courses.</td>
</tr>
<tr>
<td>Special protective equipment for fire-fighters</td>
<td>Wear self-contained breathing apparatus for firefighting if necessary.</td>
</tr>
<tr>
<td>Further information</td>
<td>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 containers.</td>
</tr>
<tr>
<td>Fire and explosion protection</td>
<td>Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon oxides.</td>
</tr>
</tbody>
</table>

SECTION 6: Accidental release measures

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions</td>
<td>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.</td>
</tr>
<tr>
<td>Environmental precautions</td>
<td>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.</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>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</td>
</tr>
</tbody>
</table>
SECTION 7: Handling and storage

Handling

Advice on safe handling: Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - 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 against 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 with local and national regulations.

Advice on protection against fire and explosion: Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

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. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Use: Reference Fuel

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>CN</th>
<th>Components</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Heptane</td>
<td>GBZ 2.1-2007</td>
<td>PC-TWA</td>
<td>500 mg/m³</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GBZ 2.1-2007</td>
<td>PC-STEL</td>
<td>1,000 mg/m³</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not applicable

Engineering measures

Adequate ventilation to control airborne 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: Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved
respirator that provides protection when working with this
material if exposure to harmful levels of airborne material may
occur, such as: Air-Purifying Respirator for Organic Vapors.
Full-Face Air-Purifying Respirator for Organic Vapors, Dusts
and Mists. Use a positive pressure, air-supplying respirator if
there is potential for uncontrolled release, exposure levels are
not known, or other circumstances where air-purifying
respirators may not provide adequate protection.

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.

Eye protection: Eye wash bottle with pure water. Tightly fitting safety goggles.

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
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.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance
Physical state: Liquid
Color: Colorless
Odor: gasoline-like

Safety data
Flash point: -8 °C (18 °F)
Method: Tag closed cup

Lower explosion limit: 1 %(V)
Upper explosion limit: 7 %(V)

Oxidizing properties: No

Autoignition temperature: No data available

Molecular formula: Mixture

Molecular weight: Not applicable

pH: Not applicable

Freezing point: No data available
### Pour point
No data available

### Boiling point/boiling range
96 - 103 °C (205 - 217 °F)

### Vapor pressure
1.70 PSI at 37.8 °C (100.0 °F)

### Relative density
0.693 at 15.6 °C (60.1 °F)

### Water solubility
Negligible

### Partition coefficient: n-octanol/water
No data available

### Viscosity, kinematic
No data available

### Relative vapor density
3 (Air = 1.0)

### Evaporation rate
1

### Percent volatile
> 99 %

### SECTION 10: Stability and reactivity

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

**Possibility of hazardous reactions**

**Hazardous reactions**: Hazardous polymerization does not occur.

Further information: No decomposition if stored and applied as directed.

Hazardous reactions: Vapors may form explosive mixture with air.

**Conditions to avoid**: Heat, flames and sparks.

**Materials to avoid**: May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Hazardous decomposition products**: Carbon oxides

**Other data**: No decomposition if stored and applied as directed.

### SECTION 11: Toxicological information
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Acute oral toxicity: LD50: > 5,000 mg/kg
Species: Rat
Method: Acute toxicity estimate

Acute inhalation toxicity: LC50: > 20 mg/l
Species: Rat
Test atmosphere: dust/mist
Method: Acute toxicity estimate

Acute dermal toxicity: LD50: > 2,000 mg/kg
Species: Rabbit
Method: Acute toxicity estimate

Skin irritation: Skin irritation

Eye irritation: Vapors may cause irritation to the eyes, respiratory system and the skin.

Sensitization: Did not cause sensitization on laboratory animals.

Repeated dose toxicity
2,2,4-Trimethylpentane (Isooctane)
Species: Rat, Male and female
Sex: Male and female
Application Route: Inhalation
Dose: 0, 668, 2220, 6646 ppm
Exposure time: 13 weeks
Number of exposures: 6 hr/day 5 d/wk
NOEL: 8.117 mg/l 2220 ppm
Method: OECD Guideline 413
Information given is based on data obtained from similar substances.

n-Heptane
Species: Rat, male
Sex: male
Application Route: Inhalation
Dose: 12.47 mg/l
Exposure time: 16 wk
Number of exposures: 12 h/d, 7 d/wk
NOEL: 12.47 mg/l
No adverse effect has been observed in chronic toxicity tests.
Species: Rat, Male and female  
Sex: Male and female  
Application Route: Inhalation  
Dose: 12.35 mg/l  
Exposure time: 26 wk  
Number of exposures: 6 h/d, 5 d/wk  
Method: OECD Test Guideline 413  
No adverse effect has been observed in chronic toxicity tests.

### Genotoxicity in vitro

<table>
<thead>
<tr>
<th>Compound</th>
<th>Test Type</th>
<th>Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>Ames test</td>
<td>Mutagenicity (Escherichia coli - reverse mutation assay)</td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mouse lymphoma assay</td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sister Chromatid Exchange Assay</td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unscheduled DNA synthesis assay</td>
<td>negative</td>
</tr>
<tr>
<td>n-Heptane</td>
<td>Ames test</td>
<td>Mutagenicity (Escherichia coli - reverse mutation assay)</td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mammalian cell gene mutation assay</td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromosome aberration test in vitro</td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mitotic recombination</td>
<td>negative</td>
</tr>
</tbody>
</table>

### Genotoxicity in vivo

<table>
<thead>
<tr>
<th>Compound</th>
<th>Test Type</th>
<th>Species</th>
<th>Dose</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>Unscheduled DNA synthesis assay</td>
<td>Mouse</td>
<td>500 mg/kg</td>
<td>negative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rat</td>
<td>500 mg/kg</td>
<td>negative</td>
</tr>
</tbody>
</table>

### Reproductive toxicity

<table>
<thead>
<tr>
<th>Compound</th>
<th>Species</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane</td>
<td>Rat</td>
<td>Male and female</td>
</tr>
</tbody>
</table>
n-Heptane
Species: Rat
Sex: male and female
Application Route: Inhalation
Dose: 0, 900, 3000, 9000 ppm
Number of exposures: 6 hr/d, 5 d/wk
Test period: 13 wk
Method: OECD Test Guideline 416
NOAEL Parent: 9000 ppm
NOAEL F1: 3000 ppm
NOAEL F2: 3000 ppm
Information given is based on data obtained from similar substances.

Developmental Toxicity
2,2,4-Trimethylpentane (Iooctane) : Species: Rat
Application Route: Inhalation
Dose: 0, 400, 1200 ppm
Number of exposures: 6h/d
Test period: GD6-15
NOAEL Teratogenicity: 1200 ppm
NOAEL Maternal: 1200 ppm
Information given is based on data obtained from similar substances.

Species: Rat
Application Route: Inhalation
Dose: 0, 900, 3000, 9000 ppm
Number of exposures: 6h/d
Test period: GD6-15
Method: OECD Guideline 414
NOAEL Teratogenicity: 9000 ppm
NOAEL Maternal: 3000 ppm
Information given is based on data obtained from similar substances.

n-Heptane
Species: Rat
Application Route: Inhalation
Dose: 0, 900, 3000, 9000 ppm
Exposure time: GD6-15
Number of exposures: 6 hrs/d
NOAEL Teratogenicity: 9000 ppm
NOAEL Maternal: 3000 ppm

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Aspiration toxicity : May be fatal if swallowed and enters airways.

CMR effects
2,2,4-Trimethylpentane (Isooctane) : Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Teratogenicity: Animal testing did not show any effects on fetal development.
Reproductive toxicity: Animal testing did not show any effects on fertility.

n-Heptane Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Teratogenicity: Animal testing did not show any effects on fetal development.
Reproductive toxicity: No toxicity to reproduction

Further information : Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

SECTION 12: Ecological information

Toxicity to fish

2,2,4-Trimethylpentane (Isooctane) : LC50: 0.11 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
semi-static test Method: OECD Test Guideline 203
Information given is based on data obtained from similar substances.
n-Heptane LL50: 5.738 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
Method: QSAR modeled data

Toxicity to daphnia and other aquatic invertebrates

2,2,4-Trimethylpentane (Isooctane) : EC50: 0.4 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
static test Information given is based on data obtained from similar substances.
n-Heptane EC50: 1.5 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
static test Toxic to aquatic organisms.

LC50: 0.1 mg/l
Exposure time: 96 h
Species: Mysidopsis bahia (mysid shrimp)
semi-static test Very toxic to aquatic organisms.

Toxicity to algae
### Toxicity to fish (Chronic toxicity)

<table>
<thead>
<tr>
<th>Substance</th>
<th>EL50</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Heptane</td>
<td>4.338 mg/l</td>
<td>72 h</td>
<td>Pseudokirchneriella subcapitata (microalgae)</td>
<td>QSAR modeled data</td>
</tr>
</tbody>
</table>

### Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

<table>
<thead>
<tr>
<th>Substance</th>
<th>NOEL</th>
<th>Exposure time</th>
<th>Species</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane (Isooctane)</td>
<td>0.17 mg/l</td>
<td>21 d</td>
<td>Daphnia magna (Water flea)</td>
<td>OECD Test Guideline 211</td>
</tr>
</tbody>
</table>

### Biodegradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Result</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane (Isooctane)</td>
<td>Not readily biodegradable.</td>
<td>OECD Test Guideline 301</td>
</tr>
<tr>
<td>n-Heptane</td>
<td>Readily biodegradable.</td>
<td>OECD Test Guideline 201</td>
</tr>
<tr>
<td></td>
<td>70 %</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testing period: 10 d</td>
<td></td>
</tr>
</tbody>
</table>

### Results of PBT assessment

<table>
<thead>
<tr>
<th>Substance</th>
<th>PBT Classification</th>
<th>vPvB Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane (Isooctane)</td>
<td>Non-classified PBT substance</td>
<td>Non-classified vPvB substance</td>
</tr>
<tr>
<td>n-Heptane</td>
<td>Non-classified PBT substance</td>
<td>Non-classified vPvB substance</td>
</tr>
</tbody>
</table>

### Additional ecological information

**Ecotoxicology Assessment**

**Short-term (acute) aquatic hazard**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Toxicity to aquatic life.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane (Isooctane)</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>n-Heptane</td>
<td>Very toxic to aquatic life.</td>
</tr>
</tbody>
</table>

**Long-term (chronic) aquatic hazard**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Toxicity to aquatic life with long lasting effects.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2,4-Trimethylpentane (Isooctane)</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

(Iooctane) 
n-Heptane : Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

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

Product : 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.

Contaminated packaging : 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.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)
UN1268, PETROLEUM DISTILLATES, N.O.S., 3, II, MARINE POLLUTANT, (2,2,4-TRIMETHYLPENTANE (ISOOCTANE), HEPTANE)

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
UN1268, PETROLEUM DISTILLATES, N.O.S., 3, II, (-8 °C), MARINE POLLUTANT, (2,2,4-TRIMETHYLPENTANE (ISOOCTANE), HEPTANE)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
UN1268, PETROLEUM DISTILLATES, N.O.S., 3, II

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
UN1268, PETROLEUM DISTILLATES, N.O.S., 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS, (2,2,4-TRIMETHYLPENTANE (ISOOCTANE), HEPTANE)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
UN1268, PETROLEUM DISTILLATES, N.O.S., 3, II, ENVIRONMENTALLY HAZARDOUS, (2,2,4-TRIMETHYLPENTANE (ISOOCTANE), HEPTANE)
ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
UN1268, PETROLEUM DISTILLATES, N.O.S., 3, II, ENVIRONMENTALLY HAZARDOUS, (2,2,4-TRIMETHYLpentane (ISOoctane), HEPTANE)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

| Classification and Labeling of Commonly Used Dangerous Chemical Substances | Primary label: Combustible Liquid. |
| China. Banned or Severely Restricted Toxic Chemicals Regulation for Environmental Management of the First Import of Chemicals and the Import & Export of Toxic Chemicals, Article 3) |
| 2,2,4-trimethylpentane | Severely restricted. |

Notification status

<table>
<thead>
<tr>
<th>Country</th>
<th>Status of Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe REACH</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>Switzerland CH INV</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>United States of America (USA)</td>
<td>On or in compliance with the active portion of the TSCA inventory</td>
</tr>
<tr>
<td>Canada DSL</td>
<td>All components of this product are on the Canadian DSL</td>
</tr>
<tr>
<td>Australia AICS</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>New Zealand NZIoC</td>
<td>Not in compliance with the inventory</td>
</tr>
<tr>
<td>Japan ENCS</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>Korea KECI</td>
<td>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.</td>
</tr>
<tr>
<td>Philippines PICCS</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>China IECSC</td>
<td>On the inventory, or in compliance with the inventory</td>
</tr>
<tr>
<td>Taiwan TCSI</td>
<td>On the inventory, or in compliance with the inventory</td>
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</table>

Other regulations

Law on the Prevention and Control of Occupational Diseases

SECTION 16: Other information

Further information

Legacy SDS Number : 28440

SDS Number:100000014260 14/15
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.

<table>
<thead>
<tr>
<th>Key or legend to abbreviations and acronyms used in the safety data sheet</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
<td>LD50</td>
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<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
<td>LOAEL</td>
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<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
<td>NFPA</td>
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<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
<td>NIOSH</td>
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<tr>
<td>CNS</td>
<td>Central Nervous System</td>
<td>NTP</td>
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<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
<td>NZIoC</td>
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<tr>
<td>EC50</td>
<td>Effective Concentration</td>
<td>NOAEL</td>
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<tr>
<td>EC50</td>
<td>Effective Concentration 50%</td>
<td>NOEC</td>
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<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
<td>OSHA</td>
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<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
<td>PEL</td>
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<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
<td>PICCS</td>
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<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
<td>PRNT</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
<td>RCRA</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
<td>SARAR</td>
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<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
<td>TLV</td>
</tr>
<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
<td>TWA</td>
</tr>
<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
<td>TSCA</td>
</tr>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
<td>UVCB</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less Than or Equal To</td>
<td>WHMIS</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
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