

SAFETY DATA SHEET

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

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

1.1 Product identifier

Product name: **PARATHERM™ HR**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Heat Transfer Fluid

Uses advised against: None identified.

1.3 Details of the supplier of the safety data sheet

Supplier

Company Name: LUBRIZOL LIMITED
Address: THE KNOWLE, NETHER LANE
HAZELWOOD, DERBYSHIRE, DE56 4AN
GB
Telephone: (44) 01332-842211
E-mail contact: EUSDS@lubrizol.com {Lubrizol Safety Data Sheets can be obtained at
www.mylubrizol.com}

1.4 Emergency telephone number:

FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1) 703 527 3887

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classified in accordance with CLP Regulation (EC) No 1272/2008, as retained and amended in UK law.

Skin irritation	Category 2	H315: Causes skin irritation.
Aspiration Hazard	Category 1	H304: May be fatal if swallowed and enters airways.
Chronic hazards to the aquatic environment	Category 3	H412: Harmful to aquatic life with long lasting effects.

The full text for all H-phrases is displayed in section 16.

2.2 Label elements in accordance with CLP Regulation (EC) No 1272/2008, as retained and amended in UK law.



Signal Words:

Danger

Hazard Statement(s): H315: Causes skin irritation.
 H304: May be fatal if swallowed and enters airways.
 H412: Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: P264: Wash face, hands and any exposed skin thoroughly after handling.
 P273: Avoid release to the environment.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P331: Do NOT induce vomiting.
 P302+P352: IF ON SKIN: Wash with plenty of water.
 P362+P364: Take off contaminated clothing and wash it before reuse.

Storage: P405: Store locked up.

Disposal: P501: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Supplemental label information

Not applicable

2.3 Other hazards:

Endocrine Disruption- Toxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Endocrine Disruption- Ecotoxicity

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Compiled in accordance with CLP Regulation (EC) No 1272/2008, as retained and amended in UK law.

Chemical name	Concentration	EC No.	REACH Registration No.	M-Factor:	Notes
diisopropyl-1,1'-biphenyl	50 - 100%	273-683-8			
Tris(1-methylethyl)-1,1'-biphenyl	10 - 25%	249-525-9			
Isopropyl biphenyl	0.1 - 1%	247-156-8		Acute: 1 Chronic: 1	
bis(isopropyl)naphthalene	0.25 - 1%	254-052-6			

600, 700 and 900 ECHA List Numbers do not have any legal significance; rather they are purely technical identifiers and are displayed for informational purposes only.

Compiled in accordance with CLP Regulation (EC) No 1272/2008, as retained and amended in UK law.

Chemical name	Classification	Notes
diisopropyl-1,1'-biphenyl	Skin Corr. 2; H315 Aquatic Chronic 4; H413	
Tris(1-methylethyl)-1,1'-biphenyl	Aquatic Chronic 4; H413	
Isopropyl biphenyl	Aquatic Acute 1; H400 Aquatic Chronic 2; H411 Asp. Tox. 1; H304 Eye Dam. 2; H319	
bis(isopropyl)naphthalene	Asp. Tox. 1; H304 Aquatic Chronic 1; H410	

The full text for all H-phrases is displayed in section 16.

See Section 15 for Regulation (EC) No. 1907/2006 REACH Article 59(1). Candidate List (Substances of Very High Concern (SVHC))

SECTION 4: First aid measures

4.1 Description of first aid measures

- Inhalation:** Remove exposed person to fresh air if adverse effects are observed.
- Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Remove contact lenses, if present and easy to do. Continue rinsing.
- Skin Contact:** Take off contaminated clothing and wash before re-use. Wash skin thoroughly with soap and water. If skin irritation occurs, get medical attention.
- Ingestion:** Do NOT induce vomiting. Aspiration of material due to vomiting can cause chemical pneumonitis which can be fatal. If vomiting occurs naturally, the casualty should lean forward to reduce the risk of aspiration. Rinse mouth. Immediately call a POISON CENTER or doctor/ physician.

4.2 Most important symptoms and effects, both acute and delayed:

See section 11.

4.3 Indication of any immediate medical attention and special treatment needed

- Hazards:** No data available.
- Treatment:** Treat symptomatically.

SECTION 5: Firefighting measures

General Fire Hazards:	No unusual fire or explosion hazards noted. Use water to cool containers exposed to fire.
5.1 Extinguishing media	
Suitable extinguishing media:	CO2, dry chemical, foam, water spray, water fog.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
5.2 Special hazards arising from the substance or mixture:	Water may cause splattering. Container may rupture on heating. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. See section 10 for additional information.
5.3 Advice for firefighters	
Special fire-fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Recommend wearing self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Ventilate area if spilled in confined space or other poorly ventilated areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. See Section 8 of the SDS for Personal Protective Equipment.
6.2 Environmental Precautions:	Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.
6.3 Methods and material for containment and cleaning up:	Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas.
6.4 Reference to other sections:	See sections 8 and 13 for additional information.

SECTION 7: Handling and storage:

7.1 Precautions for safe handling:	Avoid contact with skin. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Launder contaminated clothing before reuse. Avoid environmental contamination.
Maximum Handling Temperature:	Not determined.

7.2 Conditions for safe storage, including any incompatibilities:

Store in original container. Protect from light. Store away from incompatible materials. See section 10 for incompatible materials. Store away from potential ignition sources.

Maximum Storage Temperature:

40 °C

7.3 Specific end use(s):

End uses are listed in an attached exposure scenario when one is required.

SECTION 8: Exposure controls/personal protection
8.1 Control Parameters
Occupational Exposure Limits

None of the components have assigned exposure limits.

DNEL-Values

Critical component	Type	Route of Exposure	Health Warnings	Remarks
Isopropyl biphenyl	Workers	Inhalation	Systemic, long-term; 7.05 mg/m ³	Repeated dose toxicity
Isopropyl biphenyl	Workers	Dermal	Systemic, long-term; 2 mg/kg	Repeated dose toxicity
Isopropyl biphenyl	General population	Eyes	Local effect;	No hazard identified
Isopropyl biphenyl	Workers	Eyes	Local effect;	Low hazard (no threshold derived)
bis(isopropyl)naphthalene	Workers	Inhalation	Systemic, long-term; 8.4 mg/m ³	Repeated dose toxicity
bis(isopropyl)naphthalene	General population	Oral	Systemic, long-term; 0.85 mg/kg	Repeated dose toxicity
bis(isopropyl)naphthalene	General population	Inhalation	Systemic, long-term; 1.48 mg/m ³	Repeated dose toxicity
bis(isopropyl)naphthalene	Workers	Dermal	Systemic, long-term; 2.38 mg/kg	Repeated dose toxicity
bis(isopropyl)naphthalene	General population	Dermal	Systemic, long-term; 0.85 mg/kg	Repeated dose toxicity
bis(isopropyl)naphthalene	Workers	Eyes	Local effect;	No hazard identified
bis(isopropyl)naphthalene	General population	Eyes	Local effect;	No hazard identified

PNEC-Values

Critical component	Environmental compartment	PNEC-Values	Remarks
Isopropyl biphenyl	Aquatic (marine water)	0.054 µg/l	
Isopropyl biphenyl	Sediment (marine water)	0.1355 mg/kg	
Isopropyl biphenyl	Sediment (freshwater)	1.355 mg/kg	
Isopropyl biphenyl	Soil	0.2699 mg/kg	
Isopropyl biphenyl	Aquatic (freshwater)	0.54 µg/l	
Isopropyl biphenyl	Sewage treatment plant	2 mg/l	
bis(isopropyl)naphthalene	Sediment (marine water)	0.085 mg/kg	
bis(isopropyl)naphthalene	Soil	0.171 mg/kg	
bis(isopropyl)naphthalene	Sediment (freshwater)	0.853 mg/kg	
bis(isopropyl)naphthalene	Aquatic (freshwater)	0 mg/l	
bis(isopropyl)naphthalene	Predator	25 mg/kg	Oral
bis(isopropyl)naphthalene	Sewage treatment plant	0.15 mg/l	
bis(isopropyl)naphthalene	Aquatic (marine water)	0 mg/l	

8.2 Exposure controls

Appropriate engineering controls:

Use material in well ventilated area only. Adequate ventilation should be provided so that exposure limits are not exceeded. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information:

Please follow the recommended personal protective equipment (PPE) guidelines below and refer to the appropriate EN standard where applicable. Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection:

Wear tight-fitting goggles or face shield. Eye protection should meet the standards set out in EN 166.

Skin protection

Hand Protection:

Nitrile. Butyl rubber.

General:

Because specific work environments and material handling practices vary, safety procedures should be specific for each intended application. The correct choice of protective gloves depends upon the chemicals being handled, and the conditions of work and use. Most gloves provide protection for only a limited time before they must be discarded and replaced (even the best chemically resistant gloves will break down after repeated chemical exposures). Gloves should be chosen in consultation with the supplier / manufacturer and taking account of a full assessment of the working conditions. For typical use and handling of chemical substances, gloves should meet the standards set out in EN 374. For applications involving mechanical risks with potential for abrasion or puncture, the standards set out in EN 388 should be considered. For tasks involving thermal hazards, the standards set out in EN 407 should be considered.

Break-through time:

Breakthrough time data are generated by glove manufacturers under laboratory test conditions and represent how long a glove can be expected to provide effective permeation resistance. It is important when following breakthrough time recommendations that actual workplace conditions are taken into account. Always consult with your glove supplier for up-to-date technical information on breakthrough times for the recommended glove type.

For continuous contact, we suggest gloves with a minimum breakthrough time of 240 minutes, or > 480 minutes if suitable gloves can be obtained. If suitable gloves are not available to offer that level of protection, gloves with shorter breakthrough times may be acceptable as long as appropriate glove maintenance and replacement regimes are determined and adhered to. For short-term, transient exposures and splash protection, gloves with shorter breakthrough times may commonly be used. Therefore, appropriate maintenance and replacement regimes must be determined and rigorously followed.

Glove thickness:	<p>For general applications, we recommend gloves with a thickness typically greater than 0.35 mm.</p> <p>It is important to note that glove thickness is not the only predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material.</p> <p>Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task.</p> <p>Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example: Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, before being disposed of. Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential.</p>
Other:	<p>Long sleeve shirt is recommended. Wear apron or protective clothing in case of contact. Do not wear rings, watches or similar apparel that could entrap the material.</p>
Respiratory Protection:	<p>Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Use respirator with an organic vapor and dust/mist cartridge if the recommended exposure limit is exceeded.</p> <p>Respiratory Protective Equipment (RPE) is not normally required where there is adequate natural or local exhaust ventilation to control exposure. In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment.</p> <p>Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.</p> <p>Please refer to the relevant EN standards for the RPE selected.</p>
Hygiene measures:	<p>Observe good industrial hygiene practices. Avoid contact with skin. Wash contaminated clothing before reuse. Wash hands before breaks and immediately after handling the product.</p>
Environmental Controls:	<p>No data available. See section 6 for details.</p>

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Characteristic
Odor Threshold:	No data available.
pH:	Not applicable
Freezing point:	< -10 °C
Boiling Point:	> 300 - 340 °C
Flash Point:	> 140 °C (ASTM D93 (Pensky-Martens (A and B Closed Cup)))
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability Limit - Upper (%):	No data available.
Flammability Limit - Lower (%):	No data available.
Vapor pressure:	< 0.008 torr (20 °C)
Relative vapor density:	No data available.
Relative density:	0.945 - 0.975 (20 °C)
Solubility(ies)	
Solubility in Water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	> 415 °C
Decomposition Temperature:	No data available.
Viscosity:	10 - 16 mm ² /s (40 °C);
Explosive properties:	No data available.
Oxidizing properties:	No data available.
VOC Content:	No data available.

Particle characteristics

Particle Size:	Not applicable
Particle Size Distribution:	Not applicable
Specific surface area:	Not applicable
Surface charge/Zeta potential:	Not applicable
Assessment:	Not applicable
Shape:	Not applicable
Crystallinity:	Not applicable
Surface treatment:	Not applicable

Other information

Pour Point Temperature:	< -40 °C
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SECTION 10: Stability and reactivity

10.1 Reactivity:	No data available.
10.2 Chemical Stability:	Material is stable under normal conditions.
10.3 Possibility of hazardous reactions:	Will not occur.
10.4 Conditions to avoid:	Do not expose to excessive heat, ignition sources, or oxidizing materials.
10.5 Incompatible Materials:	Strong oxidizing agents.
10.6 Hazardous Decomposition Products:	Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion.

SECTION 11: Toxicological information**Information on likely routes of exposure**

Inhalation:	No data available.
Ingestion:	No data available.
Skin Contact:	Causes skin irritation.
Eye contact:	No data available.

11.1 Information on toxicological effects**Acute toxicity****Oral**

Product:	Not classified for acute toxicity based on available data.
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Dermal

Product:	Not classified for acute toxicity based on available data.
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Inhalation

Product:	Not classified for acute toxicity based on available data.
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Skin Corrosion/Irritation:

Product:	Remarks: Causes skin irritation. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
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Serious Eye Damage/Eye Irritation:

Product:	Remarks: Not classified as a primary eye irritant.
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Respiratory sensitization:

No data available

Skin sensitization:

Isopropyl biphenyl

Classification: Not a skin sensitizer. (Supplier information) Not a skin sensitizer.

bis(isopropyl)naphthalene

Classification: Not a skin sensitizer. (Literature) Not a skin sensitizer.

Specific Target Organ Toxicity - Single Exposure:

No data available

Aspiration Hazard:

Product:

May be fatal if swallowed and enters airways.

Chronic Effects**Carcinogenicity:**

No data available

Germ Cell Mutagenicity:

bis(isopropyl)naphthalene

This material has not exhibited mutagenic or genotoxic potential in laboratory tests.

Reproductive toxicity:

No data available

Specific Target Organ Toxicity - Repeated Exposure:

No data available

11.2 Information on health hazards**Other hazards**

Product:

No data available.

Endocrine Disruption

Product:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.;

SECTION 12: Ecological information**12.1 Ecotoxicity****Fish**

Isopropyl biphenyl

LC 50 (Not reported, 4 h): 0.6 mg/l

Aquatic Invertebrates

No data available

Toxicity to Aquatic Plants

No data available

Toxicity to soil dwelling organisms

No data available

Sediment Toxicity

No data available

Toxicity to Terrestrial Plants

No data available

Toxicity to Above-Ground Organisms

No data available

Toxicity to microorganisms

No data available

12.2 Persistence and Degradability
Biodegradation

diisopropyl-1,1'-biphenyl	Miscellaneous, 20 %, 56 d, Not readily degradable.
Isopropyl biphenyl	Miscellaneous, 100 %, 10 d, Readily biodegradable
bis(isopropyl)naphthalene	Miscellaneous, 20 %, 56 d, Not readily degradable. OECD TG 302 C, 8 %, 28 d, Not readily degradable.

BOD/COD Ratio

No data available

12.3 Bioaccumulative potential
Bioconcentration Factor (BCF)

diisopropyl-1,1'-biphenyl	Bioconcentration Factor (BCF): 6,309.57 (Read across)
Isopropyl biphenyl	Bioconcentration Factor (BCF): 1,023.29 (Measured)
bis(isopropyl)naphthalene	Bioconcentration Factor (BCF): 6,309.57 (Measured)

Partition Coefficient n-octanol / water (log Kow)

Isopropyl biphenyl	Log Kow: 5.2 (Measured)
bis(isopropyl)naphthalene	Log Kow: 6.081 (calculated)

12.4 Mobility:

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine Disruption:

Product:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product: Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal methods: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty container contains product residue which may exhibit hazards of product.

Contaminated Packaging: Container packaging may exhibit hazards.

SECTION 14: Transport information

ADR

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

None known.

Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. For transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed. Review classification requirements before shipping materials at elevated temperatures.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

EU Regulations

EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances:

None present or none present in regulated quantities.

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended:

None present or none present in regulated quantities.

EU. Chemicals Subject to PIC Procedure: Regulation 649/2012/EU on export and import of dangerous chemicals, as amended:

None present or none present in regulated quantities.

Regulation (EC) No. 1907/2006, REACH Article 59(1). Candidate List:

None present or none present in regulated quantities.

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:

None present or none present in regulated quantities.

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:

None present or none present in regulated quantities.

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:

None present or none present in regulated quantities.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:

None present or none present in regulated quantities.

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:

None present or none present in regulated quantities.

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:

None present or none present in regulated quantities.

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:

None present or none present in regulated quantities.

Inventory Status**Australia (AIC)**

This product contains a substance that is not listed on the Australia Inventory of Chemical Substances.

Canada (DSL/NDSL)

This product contains one or more substances that are present on the Non-Domestic Substances List (NDSL). This product may be imported to Canada in limited quantities.

China (IECSC)

All components of this product are listed on the Inventory of Existing Chemical Substances in China.

European Union (REACH)

To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Great Britain (UK REACH)

To obtain information on the UK REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Japan (ENCS)

All components are in compliance with the Chemical Substances Control Law of Japan.

Korea (ECL)

All components are in compliance in Korea.

New Zealand (NZIoC)

All components are in compliance with chemical notification requirements in New Zealand.

Philippines (PICCS)

This product requires notification before sale in the Philippines.

Switzerland (SWISS)

All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Taiwan (TCSCA)

All components of this product are listed on the Taiwan inventory.

Turkey (KKDIK)

To obtain information on the KKDIK compliance status of this product, please e-mail REACH@SDSInquiries.com.

United States (TSCA)

All substances contained in this product are listed on the TSCA inventory or are exempt.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.

15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Key literature references and sources for data: Internal company data and other publically available resources.

Wording of the H-statements in section 2 and 3:

H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H412	Harmful to aquatic life with long lasting effects.

Other information:**Abbreviations and acronyms:**

ACGIH – American Conference of Governmental Industrial Hygienist
ADR - International Carriage of Dangerous Goods by Road

AICS - Australian Inventory of Chemical Substances
ATEmix - Acute Toxicity Estimate for the mixture
BCF - Bio concentration factor
DMSO - Dimethyl sulfoxide
DSL - Domestic Substance List
EC50 - Effective concentration that gives a response in 50% of the population
ECHA - European Chemical Agency
ECL - Existing Chemical List
ENCS - Existing and New Chemical Substances
EPA – Environmental Protection Agency
IARC - International Agency for Research on Cancer
IATA - International Air Transport Association
IECSC - Inventory of Existing Chemical Substances
IMDG - International Maritime Dangerous Goods
IP 346 – A gravimetric assay used to determine the percentage weight of polycyclic aromatics in oil, via a DMSO extraction technique
LC50 - Lethal concentration required to kill 50% of the population
MARPOL - International Conventions for the Prevention of Pollution from Ships
NDSL - Non Domestic Substance List
NOAEC - No observed adverse effect concentration
NOAEL - No observed adverse effect level
NOEC - No observed effective concentration
NTP - National Toxicology Program
NZloc - New Zealand Inventory of chemicals
OECD TG - Organization for Economic Cooperation and Development Test Guidelines
OSHA – Occupational, Safety, and Health Administration
PBT – Persistent bioaccumulative toxic chemical
PEL – Permissible Exposure Level
PICCS - Philippine Inventory of Chemicals and Chemical Substances
PPE - Personal Protective Equipment
PRTR - Pollutant Release and Transfer Register
REACH - Registration, Evaluation, Authorization & restriction of Chemicals
SVHC - Substance of Very High Concern
SWISS - Switzerland chemical ordinance
TCSCA - Toxic Chemical Substance Control Act
TLV – Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA – Time Weighted Average
vPvB – very Persistent very Bioaccumulative

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Disclaimer:

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.

Reference to Regulation (EC) No. 1907/2006 (EU REACH), including but not limited to EU REACH registration numbers is provided for informational purposes only. UK REACH (EU Exit Regulation as amended) data and information will be provided as it becomes available.