SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product name : Shell Diala S2 ZX-A

Product code : 001D8374

Manufacturer or supplier’s details
Manufacturer/Supplier : Shell Oil Products US
P.O. Box 4427
Houston TX 77210-4427
USA
SDS Request : (+1) 877-276-7285
Customer Service :

Emergency telephone number
Spill Information : 877-504-9351
Health Information : 877-242-7400

Recommended use of the chemical and restrictions on use
Recommended use : Insulating oil.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Aspiration hazard : Category 1
Chronic aquatic toxicity : Category 3

GHS Label element
Hazard pictograms :

Signal word : Danger

Hazard statements :
PHYSICAL HAZARDS:
Not classified as a physical hazard under GHS criteria.
HEALTH HAZARDS:
H304 May be fatal if swallowed and enters airways.
ENVIRONMENTAL HAZARDS:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements :
Prevention:
P273 Avoid release to the environment.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
Storage:
P405 Store locked up.
**Disposal:**
P501 Dispose of contents/container to an approved waste disposal plant.

Hazardous components which must be listed on the label:
Contains Distillates (petroleum), hydrotreated light naphthenic.

**Other hazards which do not result in classification**
Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.
Used oil may contain harmful impurities.
Not classified as flammable but will burn.

The classification of this material is based on OSHA HCS 2012 criteria.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature:** Highly refined mineral oils and additives.
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

**Hazardous components**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Synonyms</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated light naphthenic</td>
<td>Distillates (petroleum), hydrotreated light naphthenic</td>
<td>64742-53-6</td>
<td>95 - 100</td>
</tr>
<tr>
<td>Butylated hydroxytoluene</td>
<td>2,6-di-tert-butyl-p-cresol</td>
<td>128-37-0</td>
<td>0.25 - 0.5</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST-AID MEASURES

**If inhaled:** No treatment necessary under normal conditions of use.
If symptoms persist, obtain medical advice.

**In case of skin contact:** Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available.
If persistent irritation occurs, obtain medical attention.

**In case of eye contact:** Flush eye with copious quantities of water.
If persistent irritation occurs, obtain medical attention.

**If swallowed:** If swallowed, do not induce vomiting: transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

Most important symptoms and effects, both acute and delayed:
If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever.
The onset of respiratory symptoms may be delayed for sever-

Protection of first-aiders: When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.

Immediate medical attention, special treatment: Treat symptomatically. Call a doctor or poison control center for guidance.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media: Do not use water in a jet.

Specific hazards during fire-fighting: Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for firefighters: Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Avoid contact with skin and eyes.

Environmental precautions: Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up: Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent.
Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

Additional advice: For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

SECTION 7. HANDLING AND STORAGE

Technical measures: Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Precautions for safe handling: Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

Avoidance of contact: Strong oxidising agents.

Product Transfer: This material has the potential to be a static accumulator. Proper grounding and bonding procedures should be used during all bulk transfer operations.

Storage

Other data: Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers. Store at ambient temperature.

Packaging material: Suitable material: For containers or container linings, use mild steel or high density polyethylene. Unsuitable material: PVC.

Container Advice: Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of)</th>
<th>Control parameters / Permissible</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>800001009714</td>
<td>4 / 15</td>
<td>US</td>
<td></td>
</tr>
</tbody>
</table>
Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory. Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/
Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/
Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA) , Germany http://www.dguv.de/inhalt/index.jsp
L’Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

Engineering measures

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:

Adequate ventilation to control airborne concentrations.

Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:

Define procedures for safe handling and maintenance of controls.
Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation.
Drain down system prior to equipment break-in or maintenance.
Retain drain downs in sealed storage pending disposal or subsequent recycle.
Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.
Personal protective equipment
Respiratory protection: No respiratory protection is ordinarily required under normal conditions of use.
In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material.
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation.
Check with respiratory protective equipment suppliers.
Where air-filtering respirators are suitable, select an appropriate combination of mask and filter.
Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

Hand protection
Remarks: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced.
Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.
For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/spash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Eye protection: If material is handled such that it could be splashed into eyes, protective eyewear is recommended.

Skin and body protection: Skin protection is not ordinarily required beyond standard work clothes.
It is good practice to wear chemical resistant gloves.

Protective measures: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Environmental exposure controls
General advice: Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6.
necessary, prevent undissolved material from being dis-
charged to waste water. Waste water should be treated in a
municipal or industrial waste water treatment plant before
discharge to surface water.
Local guidelines on emission limits for volatile substances
must be observed for the discharge of exhaust air containing
vapour.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid at room temperature.</td>
</tr>
<tr>
<td>Colour</td>
<td>clear</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight hydrocarbon</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Data not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pour point</td>
<td>-57 °C / -71 °F Method: ASTM D97</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>&gt; 280 °C / 536 °F Estimated value(s)</td>
</tr>
<tr>
<td>Flash point</td>
<td>150 °C / 302 °F Method: ASTM D92</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Data not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Data not available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Typical 10 % (V)</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Typical 1 % (V)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 0.5 Pa (20 °C / 68 °F) Estimated value(s)</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>&gt; 1 Estimated value(s)</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.890 (15 °C / 59 °F)</td>
</tr>
<tr>
<td>Density</td>
<td>890 kg/m3 (15.0 °C / 59.0 °F) Method: ASTM D1298</td>
</tr>
<tr>
<td>Water solubility</td>
<td>negligible</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Data not available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Pow: &gt; 6 (based on information on similar products)</td>
</tr>
</tbody>
</table>
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Auto-ignition temperature
: > 320 °C / 608 °F

Viscosity
- Viscosity, dynamic : Data not available
- Viscosity, kinematic : 60 mm²/s (0 °C / 32 °F)
  Method: ASTM D445
  2.2 mm²/s (100 °C / 212 °F)
  Method: ASTM D445
  9 mm²/s (40.0 °C / 104.0 °F)
  Method: ASTM D445

Conductivity
: This material is not expected to be a static accumulator.

Decomposition temperature
: Data not available

SECTION 10. STABILITY AND REACTIVITY

Chemical stability
: Stable.

Possibility of hazardous reactions
: Reacts with strong oxidising agents.

Conditions to avoid
: Extremes of temperature and direct sunlight.

Incompatible materials
: Strong oxidising agents.

Hazardous decomposition products
: Hazardous decomposition products are not expected to form during normal storage.

SECTION 11. TOXICOLOGICAL INFORMATION

Basis for assessment
: Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

Information on likely routes of exposure
Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Acute toxicity

Product:
Acute oral toxicity
: LD50 (rat): > 5,000 mg/kg
Remarks: Expected to be of low toxicity:
Remarks: Aspiration into the lungs may cause chemical pneumonitis which can be fatal.

Acute inhalation toxicity: Remarks: Not considered to be an inhalation hazard under normal conditions of use.

Acute dermal toxicity: LD50 (Rabbit): > 5,000 mg/kg
Remarks: Expected to be of low toxicity:

Skin corrosion/irritation

Product:
Remarks: Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Serious eye damage/eye irritation

Product:
Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

Product:
Remarks: Not expected to be a skin sensitisier.

Germ cell mutagenicity

Product:
Remarks: Not considered a mutagenic hazard.

Carcinogenicity

Product:
Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or...
equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Product:

Remarks: Not expected to impair fertility., Not expected to be a developmental toxicant.

STOT - single exposure

Product:
Remarks: Not expected to be a hazard.

STOT - repeated exposure

Product:
Remarks: Not expected to be a hazard.

Aspiration toxicity

Product:
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Further information

Product:
Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal., ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: Slightly irritating to respiratory system.

SECTION 12. ECOLOGICAL INFORMATION

Basis for assessment

Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the ecotoxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s). (LL/EL/IL50 expressed as the nominal amount of product required to prepare aqueous test extract).

Ecotoxicity

Product:
Toxicity to fish (Acute toxicity) :
Remarks: Expected to be harmful:
Toxicity to daphnia and other aquatic invertebrates (Acute toxicity): Remarks: Expected to be harmful: LL/EL/IL50 10-100 mg/l

Toxicity to algae (Acute toxicity): Remarks: Expected to be harmful: LL/EL/IL50 10-100 mg/l

Toxicity to fish (Chronic toxicity): Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): Remarks: Data not available

Toxicity to bacteria (Acute toxicity): Remarks: Data not available

Components:
Butylated hydroxytoluene: M-Factor (Acute aquatic toxicity): 1

Persistence and degradability
Product:
Biodegradability: Remarks: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

Bioaccumulative potential
Product:
Bioaccumulation: Remarks: Contains components with the potential to bioaccumulate.

Mobility in soil
Product:
Mobility: Remarks: Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile.
Remarks: Floats on water.

Other adverse effects
no data available

Product:
Additional ecological information: Product is a mixture of non-volatile components, which are not
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SECTION 10. STABILITY AND REACTIVITY

Stability: Stable.

Hazardous Reactions: None.

Incompatible Materials: None.

Hazardous Decomposition or By-products: None.

SECTION 11. TOXICITY INFORMATION

Oral Route

LD₅₀: Not available.

LC₅₀: Not available.

Skin and/or Respiratory Route

LD₅₀: Not available.

LC₅₀: Not available.

Inhalation Route

LD₅₀: Not available.

LC₅₀: Not available.

EFFECTS OF EXPOSURE

Inhalation

No information available.

Eye Contact

No information available.

Skin Contact

No information available.

Ingestion

No information available.

Health Effects

No information available.

Environmental Exposure

No information available.

Exposure Limits

No information available.

Hazardous Exposure Concentrations

No information available.

Hazardous Filtration

No information available.

Hazardous Diluent

No information available.

Toxicological Properties

Poisonous or toxic properties are not available.

Toxicological Reviews

No information available.

SECTION 12. ECOLOGICAL INFORMATION

Biodegradability

Biodegradation is not available.

Persistence

Persistence is not available.

Bioaccumulation

Bioaccumulation is not available.

Toxicity

Toxicity is not available.

Environmental Fate

Environmental fate is not available.

Exposure Information

Exposure information is not available.

Exposure Control

Exposure control is not available.

Personal Protective Equipment

Personal protective equipment is not available.

Sanitation

Sanitation is not available.

Dispensing

Dispensing is not available.

Storage

Storage is not available.

Disposal

Disposal is not available.

Exposure Monitoring

Exposure monitoring is not available.

Other Information

Other information is not available.

Section 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues: Recover or recycle if possible.

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.

Do not dispose into the environment, in drains or in water courses.

Contaminated packaging: Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Local legislation

Remarks: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

SECTION 14. TRANSPORT INFORMATION

National Regulations

US Department of Transportation Classification (49 CFR Parts 171-180)

Not regulated as a dangerous good

International Regulation

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Pollution category: Not applicable

Ship type: Not applicable

Product name: Not applicable

Special precautions: Not applicable
Special precautions for user

Remarks : Special Precautions: Refer to Chapter 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

Additional Information : MARPOL Annex 1 rules apply for bulk shipments by sea.

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Aspiration hazard

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ., Shell classifies this material as an "oil" under the CERCLA Petroleum Exclusion, therefore releases to the environment are not reportable under CERCLA.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Immediate (Acute) Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Water Act
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

Pennsylvania Right To Know
Distillates (petroleum), hydrotreated light naphthenic 64742-53-6

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:
EINECS : All components listed or polymer exempt.

TSCA : All components listed.

DSL : All components listed.

SECTION 16. OTHER INFORMATION

Further information
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NFPA Rating (Health, Fire, Reactivity)  1, 1, 0

Due to the conversion of this product to GHS classification and labelling, there has been a significant change to the nature of the information presented in chapter 2.

A vertical bar (|) in the left margin indicates an amendment from the previous version.

Abbreviations and Acronyms: The standard abbreviations and acronyms used in this document can be looked up in reference literature (e.g. scientific dictionaries) and/or websites.

ACGIH = American Conference of Governmental Industrial Hygienists
ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road
AICS = Australian Inventory of Chemical Substances
ASTM = American Society for Testing and Materials
BEL = Biological exposure limits
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
CAS = Chemical Abstracts Service
CEFIC = European Chemical Industry Council
CLP = Classification Packaging and Labelling
COC = Cleveland Open-Cup
DIN = Deutsches Institut fur Normung
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
DSL = Canada Domestic Substance List
EC = European Commission
EC50 = Effective Concentration fifty
ECETOC = European Center on Ecotoxicology and Toxicology Of Chemicals
ECHEN = European Chemicals Agency
EINECS = The European Inventory of Existing Commercial Chemical Substances
EL50 = Effective Loading fifty
ENCS = Japanese Existing and New Chemical Substances Inventory
EWC = European Waste Code
GHS = Globally Harmonised System of Classification and Labelling of Chemicals
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IC50 = Inhibitory Concentration fifty
IL50 = Inhibitory Level fifty
IMDG = International Maritime Dangerous Goods
INV = Chinese Chemicals Inventory
IP346 = Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics DMSO-extractables
KECI = Korea Existing Chemicals Inventory
LC50 = Lethal Concentration fifty
LD50 = Lethal Dose fifty per cent.
LL/EL/IL = Lethal Loading/Effective Loading/Inhibitory loading
LL50 = Lethal Loading fifty
MARPOL = International Convention for the Prevention of Pollution From Ships
NOEC/NOEL = No Observed Effect Concentration / No Ob-
served Effect Level
OE_HPV = Occupational Exposure - High Production Volume
PBT = Persistent, Bioaccumulative and Toxic
PICCS = Philippine Inventory of Chemicals and Chemical
Substances
PNEC = Predicted No Effect Concentration
REACH = Registration Evaluation And Authorisation Of
Chemicals
RID = Regulations Relating to International Carriage of Dan-
gerous Goods by Rail
SKIN_DES = Skin Designation
STEL = Short term exposure limit
TRA = Targeted Risk Assessment
TSCA = US Toxic Substances Control Act
TWA = Time-Weighted Average
vPvB = very Persistent and very Bioaccumulative

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This information is based on our current knowledge and is intended to describe the product for
the purposes of health, safety and environmental requirements only. It should not therefore be
construed as guaranteeing any specific property of the product.