

Safety Data Sheet

HiTEC® 151 Performance Additive

SDS no.

H151

Section 1. Identification

Product identifier : HiTEC® 151 Performance Additive

Product use : Petrochemical industry: Lubricating Oil Additive.

Date of issue/Revisions : 18 November 2022

In case of emergency - Chemical

+1-703-527-3887 (International)

+65-3158-1349 (Asia Pacific)

+61-290372994 (Australia)

4001-204937 (China)

+81-345209637 (Japan)

00-308-13-2549 (South Korea)

+1-703-741-5979 (Spanish language)

+44-870-8200418 (UK)

1-800-424-9300 (ÙS & Canada)

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Section 2. Hazards identification

Classification of the substance or mixture

: Not classified.

GHS label elements

Hazard pictograms

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Store in a well-ventilated place.

Disposal : Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Other hazards which do

not result in classification

: None known.

Please note some GHS hazard classifications listed above may not be applicable in your country or region and are shown for informational purposes only.

For other GHS hazard classifications not listed above, the classification is not applicable in your region.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

| Ingredient name | CAS number | % | GHS Classification | Туре |
|-----------------------------------------------------------|---------------|-----------|--------------------------------|------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 64742-65-0 | ≥25 - ≤35 | ASPIRATION HAZARD - Category 1 | [1] [2] |
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | ≥25 - ≤35 | Not classified. | [2] |
| Distillates (petroleum), solvent-refined heavy paraffinic | 64741-88-4 | ≥25 - ≤35 | Not classified. | [2] |

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

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Section 3. Composition/information on ingredients

Please note some GHS hazard classifications listed above may not be applicable in your country or region and are shown for informational purposes only.

Type

- [1] Substance classified with a physical, health or environmental hazard
- [2] Substance with a workplace exposure limit

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally

lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

medical attention if irritation occurs.

Inhalation : If inhaled, remove to fresh air. Get medical attention if symptoms occur. If not

breathing, give artificial respiration. If breathing is difficult, administer oxygen.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Remove victim to fresh air and keep at rest in a

position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms

occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first: No action shall be taken involving any personal risk or without suitable training.

aiders

See toxicological information (Section 11)

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Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing

: In case of fire, use water spray (fog), foam, dry chemical or CO₂.

media

Unsuitable extinguishing media

: Do not use water jet.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

: Decomposition products may include the following materials: carbon dioxide carbon monoxide

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for firefighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits | | | |
|-----------------------------------------------------------|-------------------------------------------------------------------------------|--|--|--|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | Safe Work Australia (Australia, 12/2019). TWA: 5 mg/m³ 8 hours. Form: Mist | | | |
| Distillates (petroleum), hydrotreated heavy paraffinic | Safe Work Australia (Australia, 12/2019). TWA: 5 mg/m³ 8 hours. Form: Mist | | | |
| Distillates (petroleum), solvent-refined heavy paraffinic | Safe Work Australia (Australia, 12/2019). TWA: 5 mg/m³ 8 hours. Form: Mist | | | |

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

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Section 8. Exposure controls/personal protection

Hand protection

: Hand Protection: Wear chemical resistant gloves. Nitrile gloves of minimum thickness 0.4 mm have an expected breakthrough time of 480 minutes or less when in frequent contact with the product. Due to variable exposure conditions the user must consider that the practical use of a chemical-protective glove in practice may be much shorter than the permeation time above. Manufacturer's directions for use, especially about the minimum thickness and the minimum breakthrough time, must be observed. This information does not replace suitability tests by the end user since glove protection varies depending on the conditions under which the product is used.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Physical state : Liquid. [Viscous]

Colour : Yellow. Amber.

Colour : Yellow. Amber
Odour : Not available.

Odour threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : Not available.

Flash point : Closed cup: 150°C (302°F) [Pensky-Martens Minimum]

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper : Not available.

explosive (flammable)

limits

Vapour pressure : Not available.

Relative vapour density : Not available.

Vapour density : Not available.

Density : 0.87 g/cm³ [59°F (15°C)]

Relative density: Not available.

Solubility(ies)

| Media | Result |
|------------|-------------|
| cold water | Not soluble |

Partition coefficient: noctanol/water : Not applicable.

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Section 9. Physical and chemical properties

Auto-ignition

: Not available.

temperature

Decomposition

: Not available.

temperature

Viscosity

1200 cSt @ 100°C

Explosive properties

: Not available.

Oxidising properties

: Not available.

Particle characteristics

Median particle size

: Not applicable.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : High temperatures, sparks, and open flames.

Incompatible materials: Strong oxidising and reducing agents.

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient | Test | Result | Species | Dose | Exposure | Remarks |
|-----------------------------------------------------------------|-------------------------------------|------------------------------------|---------|-------------|----------|----------------------------------------|
| name | | | | | | |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 403 Acute Inhalation Toxicity | LC50 Inhalation Vapour | Rat | >5.53 mg/l | 4 hours | - |
| | 402 Acute Dermal Toxicity | LD50 Dermal | Rabbit | >5000 mg/kg | - | - |
| | 401 Acute Oral Toxicity | LD50 Oral | Rat | >5000 mg/kg | - | - |
| Distillates (petroleum), hydrotreated heavy paraffinic | 403 Acute Inhalation Toxicity | LC50 Inhalation Dusts and mists | Rat | >5.53 mg/l | 4 hours | Based on data for a similar substance. |
| | 402 Acute Dermal Toxicity | LD50 Dermal | Rabbit | >5000 mg/kg | - | Based on data for a similar substance. |
| | 401 Acute Oral Toxicity | LD50 Oral | Rat | >5000 mg/kg | - | Based on data for a similar |

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| (I // | 403 Acute Inhalation Toxicity | LC50 Inhalation Vapour | Rat | >5.53 mg/l | 4 hours | Based on data for a similar substance. |
|-------|-------------------------------------|---------------------------|--------|-------------|---------|----------------------------------------------|
| | None available. | LD50 Dermal | Rabbit | >2000 mg/kg | - | - |
| | None available. | LD50 Oral | Rat | >5000 mg/kg | - | - |

Conclusion/Summary

: Based on available data, the classification criteria are not met.

Irritation/Corrosion

| Product/ingredient name | Test | Species | Result | Remarks |
|-----------------------------------------------------------------|---------------------------------------|---------|------------------------|----------------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 405 Acute Eye Irritation/Corrosion | Rabbit | Eyes - Not an Irritant | Based on data for a similar substance. |
| | 404 Acute Dermal Irritation/Corrosion | Rabbit | Skin - Not an Irritant | Based on data for a similar substance. |
| Distillates (petroleum), hydrotreated heavy paraffinic | 405 Acute Eye Irritation/Corrosion | Rabbit | Eyes - Not an Irritant | Based on data for a similar substance. |
| | 404 Acute Dermal Irritation/Corrosion | Rabbit | Skin - Not an Irritant | Based on data for a similar substance. |
| Distillates (petroleum), solvent-refined heavy paraffinic | 405 Acute Eye Irritation/Corrosion | Rabbit | Eyes - Not an Irritant | Based on data for a similar substance. |
| • | 404 Acute Dermal Irritation/Corrosion | Rabbit | Skin - Not an Irritant | Based on data for a similar substance. |

Conclusion/Summary

Skin: Based on available data, the classification criteria are not met.

Eyes : Based on available data, the classification criteria are not met.

Respiratory: Based on available data, the classification criteria are not met.

Sensitisation

| Product/ingredient name | Test | Route of exposure | Species | Result | Remarks |
|-----------------------------------------------------------------|---------------------------|-------------------|------------|--------------------|----------------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 406 Skin Sensitization | skin | Guinea pig | Not sensitizing | Based on data for a similar substance. |
| Distillates (petroleum), hydrotreated heavy paraffinic | 406 Skin Sensitization | skin | Guinea pig | Not sensitizing | Based on data for a similar substance. |
| Distillates (petroleum), solvent-refined heavy paraffinic | 406 Skin Sensitization | skin | Guinea pig | Not sensitizing | Based on data for a similar substance. |

Conclusion/Summary

Skin: Based on available data, the classification criteria are not met.

Respiratory: Based on available data, the classification criteria are not met.

Mutagenicity

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| Product/ingredient | Test | Experiment | Result | Remarks |
|----------------------------------|----------------------------------|---------------------------|----------|---------------------|
| name | | | | |
| Distillates (petroleum), | 471 Bacterial Reverse | Experiment: In vitro | Negative | Based on data for a |
| solvent-dewaxed heavy paraffinic | Mutation Test | Subject: Bacteria | | similar substance. |
| · | 473 In vitro Mammalian | Experiment: In vitro | Negative | Based on data for a |
| | Chromosomal Aberration Test | Subject: Mammalian-Animal | | similar substance. |
| Distillates (petroleum), | 471 Bacterial Reverse | Experiment: In vitro | Negative | Based on data for a |
| hydrotreated heavy paraffinic | Mutation Test | Subject: Bacteria | | similar substance. |
| | 473 In vitro Mammalian | Experiment: In vitro | Negative | Based on data for a |
| | Chromosomal Aberration Test | Subject: Mammalian-Animal | | similar substance. |
| | 476 In vitro Mammalian | Experiment: In vitro | Negative | Based on data for a |
| | Cell Gene Mutation Test | Subject: Mammalian-Animal | | similar substance. |
| | 474 Mammalian | Experiment: In vivo | Negative | Based on data for a |
| | Erythrocyte Micronucleus Test | Subject: Mammalian-Animal | | similar substance. |
| Distillates (petroleum), | 471 Bacterial Reverse | Experiment: In vitro | Negative | Based on data for a |
| solvent-refined heavy paraffinic | Mutation Test | Subject: Bacteria | | similar substance. |
| | 473 In vitro Mammalian | Experiment: In vitro | Negative | Based on data for a |
| | Chromosomal Aberration Test | Subject: Mammalian-Animal | | similar substance. |

Conclusion/Summary

: Based on available data, the classification criteria are not met.

Carcinogenicity

| Product/ingredient | Test | Species | Exposure | Result | Remarks |
|-----------------------------------------------------------------|--------------------------------|---------|----------|---------------------------------|----------------------------------------|
| name | | | | | |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 451 Carcinogenicity Studies | Mouse | 78 weeks | Negative - Dermal - NOAEL | Based on data for a similar substance. |
| Distillates (petroleum), hydrotreated heavy paraffinic | 451 Carcinogenicity Studies | Mouse | 78 weeks | Negative - Dermal - NOAEL | Based on data for a similar substance. |
| Distillates (petroleum), solvent-refined heavy paraffinic | 451 Carcinogenicity Studies | Mouse | 78 weeks | Negative - Dermal - NOAEL | Based on data for a similar substance. |

Conclusion/Summary

: Based on available data, the classification criteria are not met.

Reproductive toxicity

| Product/ingredient name | Test | Route of exposure | - | Maternal toxicity | Fertility | Developmental toxin | Remarks |
|-----------------------------------------------------------------|------------------------------------------------------------------|-------------------|-----|-------------------|-----------|---------------------|-------------------------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 421 Reproduction/ Developmental Toxicity Screening Test | Dermal | Rat | Negative | Negative | | Based on data for a similar substance. |
| | 421 Reproduction/ Developmental Toxicity Screening Test | Oral | Rat | Negative | Negative | | Based on data for a similar substance. |
| Distillates (petroleum), hydrotreated heavy paraffinic | 421 Reproduction/ Developmental Toxicity Screening | Oral | Rat | Negative | Negative | J | Based on data for a similar |

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Section 11. Toxicological information

| Distillator (po | | Test 421 Reproduction/ | Oral | Rat | Negative | Negative | | substance. Based on |
|-----------------|------------|---------------------------|------|-----|----------|-----------|-----------|------------------------|
| Distillates (pe | uoleum), p | +z i Reproduction/ | Orai | rai | negative | inegative | inegative | Daseu on |
| solvent-refine | ed heavy [| Developmental | | | | | | data for a |
| paraffinic | 7 | Toxicity Screening | | | | | | similar |
| | 7 | Γest | | | | | | substance. |

Conclusion/Summary

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: Based on available data, the classification criteria are not met.

Teratogenicity

| Product/ingredient | Test | Species | Result | Remarks |
|-------------------------------|----------------------------|------------|-------------------|---------------------|
| | 4445 | D (| N (1 D) | D 1 1 6 |
| Distillates (petroleum), | 414 Prenatal Developmental | Rat | Negative - Dermal | Based on data for a |
| solvent-dewaxed heavy | Toxicity Study | | | similar substance. |
| paraffinic | | | | |
| Distillates (petroleum), | 414 Prenatal Developmental | Rat | Negative - Dermal | Based on data for a |
| hydrotreated heavy paraffinic | Toxicity Study | | | similar substance. |
| Distillates (petroleum), | 414 Prenatal Developmental | Rat | Negative - Dermal | Based on data for a |
| solvent-refined heavy | Toxicity Study | | | similar substance. |
| paraffinic | Toxiony olddy | | | Similar Sabstance. |
| paraminic | | | | |

Conclusion/Summary: Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure)

Based on available data, the classification criteria are not met.

Aspiration hazard

| Name | Result |
|-----------------------------------------------------------|--------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | ASPIRATION HAZARD - Category 1 |

Information on likely routes of exposure

Skin, Eyes, Ingestion, and Inhalation

Potential acute health effects

Eye contact
 Inhalation
 No known significant effects or critical hazards.
 Skin contact
 No known significant effects or critical hazards.
 Ingestion
 No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: No specific data.Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

<u>Delayed and immediate effects as well as chronic effects from short and long-term exposure</u> Short term exposure

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Potential immediate effects

: Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation. Ingestion may cause gastrointestinal irritation and diarrhoea.

Potential delayed effects

: Not available.

Long term exposure

Potential immediate effects

: Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

Potential delayed effects

: Not available.

Potential chronic health effects

| Product/ingredient | Test | Species | Dose | Exposure | Result | Remarks |
|-----------------------------------------------------------------|---------------------------------------------------------------|---------|------------|----------|----------------------------------------------------------|----------------------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 410 Repeated Dose Dermal Toxicity: 21/28-day Study | Rabbit | 1000 mg/kg | - | Sub-acute NOAEL Dermal | Based on data for a similar substance. |
| | None available. | Rat | 0.05 mg/l | 13 weeks | Sub-chronic NOAEL Inhalation Vapour | - |
| Distillates (petroleum), hydrotreated heavy paraffinic | 408 Repeated Dose 90-Day Oral Toxicity Study in Rodents | Rat | 125 mg/kg | - | Sub-chronic LOAEL Oral | Based on data for a similar substance. |
| | 410 Repeated Dose Dermal Toxicity: 21/28-day Study | Rabbit | 1000 mg/kg | - | Sub-acute NOAEL Dermal | Based on data for a similar substance. |
| | 411 Subchronic Dermal Toxicity: 90-day Study | Rat | 30 mg/kg | - | Sub-chronic NOAEL Dermal | Based on data for a similar substance. |
| | None available. | Rat | 0.15 mg/l | 13 weeks | Sub-chronic NOAEL Inhalation Dusts and mists | Based on data for a similar substance. |
| | None available. | Rat | 0.22 mg/l | 4 weeks | Sub-chronic NOAEL Inhalation Dusts and mists | Based on data for a similar substance. |
| Distillates (petroleum), solvent-refined heavy paraffinic | 410 Repeated Dose Dermal Toxicity: 21/28-day Study | Rabbit | 1000 mg/kg | - | Sub-acute NOAEL Dermal | Based on data for a similar substance. |
| | None available. | Rat | 0.15 mg/l | 13 weeks | Sub-chronic NOAEL Inhalation Vapour | Based on data for a similar substance. |
| | None available. | Rat | 0.22 mg/l | 28 days | Sub-acute NOAEL Inhalation Vapour | Based on data for a similar substance. |

Conclusion/Summary General : Based on available data, the classification criteria are not met.

: No known significant effects or critical hazards.

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Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure | Remarks |
|-----------------------------------------------------------------|---------------------------|--------------------------------------------|----------|----------------------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | Acute EL50 >10000 mg/l | Daphnia - Daphnia magna | 48 hours | Based on data for a similar substance. |
| | Acute LL50 >100 mg/ | Fish - Pimephales promelas | 96 hours | Based on data for a similar substance. |
| | Chronic NOEL ≥100 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours | Based on data for a similar substance. |
| | Chronic NOEL 10 mg/l | Daphnia - Daphnia magna | 21 days | Based on data for a similar substance. |
| | Chronic NOEL 1000 mg/l | Fish - Oncorhynchus mykiss | 14 days | QSAR result. |
| Distillates (petroleum), hydrotreated heavy paraffinic | Acute EL50 >10000 mg/l | Daphnia - Daphnia magna | 48 hours | Based on data for a similar substance. |
| | Acute LL50 >100 mg/ | Fish - Pimephales promelas | 96 hours | Based on data for a similar substance. |
| | Chronic NOEL ≥100 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours | Based on data for a similar substance. |
| | Chronic NOEL 10 mg/l | Daphnia - Daphnia magna | 21 days | Based on data for a similar substance. |
| | Chronic NOEL 1000 | Fish - Oncorhynchus mykiss | 14 days | QSAR result. |
| Distillates (petroleum), solvent-refined heavy paraffinic | Acute EL50 >10000 mg/l | Daphnia - Daphnia magna | 48 hours | Based on data for a similar substance. |
| | Acute LL50 >100 mg/ | Fish - Pimephales promelas | 96 hours | Based on data for a similar substance. |
| | Chronic NOEL ≥100 mg/l | Algae - Pseudokirchneriella subcapitata | 72 hours | Based on data for a similar substance. |
| | Chronic NOEL 10 mg/l | Daphnia - Daphnia magna | 21 days | Based on data for a similar substance. |
| | Chronic NOEL 1000 | Fish - Oncorhynchus mykiss | 14 days | QSAR result. |

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mg/l

Conclusion/Summary

: Based on available data, the classification criteria are not met.

Persistence and degradability

| Product/ingredient name | Test | Result | Remarks |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------|----------------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | OECD 301F Ready Biodegradability - Manometric Respirometry Test | 31 % - Not readily - 28 days | Based on data for a similar substance. |
| Distillates (petroleum), hydrotreated heavy paraffinic | OECD 301F Ready Biodegradability - Manometric Respirometry Test | 31 % - Not readily - 28 days | Based on data for a similar substance. |
| Distillates (petroleum), solvent-refined heavy paraffinic | OECD 301F Ready Biodegradability - Manometric Respirometry Test | 31 % - Not readily - 28 days | Based on data for a similar substance. |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|-----------------------------------------------------------------|----------|-----|-----------|
| Distillates (petroleum), solvent-refined heavy paraffinic | 3.9 to 6 | - | high |

Mobility in soil

Soil/water partition

: Not available.

coefficient (Koc)
Mobility

: Not available.

Hazardous to the ozone

: Not applicable.

layer

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and

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Section 13. Disposal considerations

its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | UN | ADG | IMDG | IATA |
|-------------------------------------------|----------------|----------------|----------------|----------------|
| 14.1 UN number | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | - | - | - | - |
| 14.3 Transport hazard class (es) | - | - | - | - |
| 14.4 Packing group | - | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. | No. |

14.6 Special precautions for user

: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments

: Not available.

Section 15. Regulatory information

China

List of Goods banned for Importing

None of the components are listed.

List of Goods banned for Exporting

None of the components are listed.

List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

Singapore

Singapore - hazardous chemicals under government control

None.

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Section 15. Regulatory information

Australia

Standard for the Uniform Scheduling of Medicines and Poisons

Not applicable.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

<u>Japan</u>

Fire Service Law

| Category | Substance name/Type | Danger category |
|-------------|----------------------|-----------------|
| Category IV | Class III petroleums | III |

Industrial Safety and Health Act

Label Requirements and Chemicals Requiring Notification

| Ingredient name | % |
|-----------------|-----|
| Mineral oil | ≥85 |

Chemical Substances Control Law (CSCL)

None of the components are listed.

Poisonous and Deleterious Substances

None of the components are listed.

Pollutant Release and Transfer Registers (PRTR)

None of the components are listed.

Japan - Water Pollution Control Law

Ingredient name

n-Hexane Extracts (mineral oil)

Korea

Regulation according to ISHA

ISHA article 117 : None of the components are listed.

(Harmful substances prohibited from

manufacture)

ISHA article 118 : None of the components are listed.

(Harmful substances requiring permission)

Regulation according to K-REACH/CCA

| | Chemical name | % | Remarks |
|-----------------|--------------------------------------|---|---------|
| K-REACH/CCA | : None of the components are listed. | | |
| Toxic chemicals | | | |

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Section 15. Regulatory information

K-REACH/CCA -

: None of the components are listed.

Banned

K-REACH/CCA -

: None of the components are listed.

Restricted

K-REACH/CCA

: None of the components are listed.

Article - TRI

Dangerous Materials

Safety Management

Act

: Class: Class 4 - Flammable Liquid

Item: 5. Class 3 petroleums - Water-insoluble liquid

Threshold: 2000 L Danger category: III

Signal word: Contact with sources of ignition prohibited

International Inventory Status

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe : For information on compliance with this regulation please contact your Afton

representative

(EHS.CustomerVolumes@AftonChemical.com).

Japan : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Switzerland : For information on compliance with this regulation please contact your Afton representative

(EHS.CustomerVolumes@AftonChemical.com).

Turkey : For information on compliance with this regulation please contact your Afton representative

(EHS.CustomerVolumes@AftonChemical.com).

Taiwan : All components are listed or exempted.

United Kingdom

(UK)

: For information on compliance with this regulation please contact your Afton representative

(EHS.CustomerVolumes@AftonChemical.com).

United States

Active

: All components are active or exempted.

Section 16. Other information

History

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EHS Department (Tel: +1 804 788 5800)

Key to abbreviations

: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

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Section 16. Other information

UN = United Nations
WOE = Weight of Evidence

lacksquare Indicates information that has changed from previously issued version.

Notice to reader

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