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# 물질안전보건자료
# (Material Safety Data Sheet)

| **Name of the product** | KK-THINNER EANAMAL |
|---|---|

## 1. information about chemicals and companies

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| A. Product name | KK-THINNER EANAMAL |
| B. Recommended uses and restrictions on use of products | |
| recommended use of the product | THINNER |
| restrictions on the use of the product | Prohibited use for anything other than its intended purpose. |

C. Supplier information (In case of imported goods, domestic supplier information available for emergency contact)

| | |
|---|---|
| Corporate name | Geumgang Paint Industry Co., Ltd |
| Address | 86-75 Chugok-gil, Gogyeong-myeon, Yeongcheon-si, Gyeongsangbuk-do |
| an emergency telephone number | 054-338-7722 |

## 2. Hazardous/hazardous

A. Hazard classification and risk classification

Carcinogenicity: Classification 1B

Reproductive cell mutagenicity: Classification 1B

Aspiration hazard: Classification 1

B. Warning signs including preventive measures

Picture text

| | |
|---|---|
| a sign language | Dangers |
| Hazardous and dangerous phrases | H304 Swallowing into the airways can be fatal |
| | H315 Causes irritation to the skin |
| | H340 May cause genetic defects (Describe exposure pathways that cause genetic defects, provided there is conclusive evidence that they do not cause genetic defects by other exposure pathways) |
| | H350 Can cause cancer (Describe the path of exposure to cause cancer; only if there is conclusive evidence that it does not cause cancer by other exposure pathways) |
| Preventive measures statement | |
| Prevention | Obtain a manual for handling P201 before use. |
| | P202 Do not handle all safety precautions until you have read and understood them. |
| | After handling P264...Wash thoroughly. |
| | P280 Wear protective gloves/protective glasses/facial protection. |
| Response | If P301+P310 swallowed: immediate medical institution/doctor/...See a doctor. |
| | P302+P352 on skin: plenty of water/...Wash with (e). |
| | P308+P313 If exposed or concerned about exposure: seek medical action/advice. |
| | P321 ...Take care of it. |
| | P331 Don't make me vomit. |
| | P332+P313 When skin irritation appears: seek medical action/advice. |
| | P362+P364 Take off contaminated clothing and wash it before use again. |
| Storage | Save with P405 lock. |
| Disposal | Dispose of contents/containers in accordance with P501 waste-related laws and regulations |

C. Other hazards and hazards not included in the criteria for classifying hazards and hazards (e.g., the risk of dust explosion)

## 3. Name and content of components

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| Material Name | 수소탈황화된 중질 나프타 (석유)(Naphtha (petroleum), hydrodesulfurized heavy) |
| Tinnitus (tolerant name) | |
| CAS Number | 64742-82-1 |
| Content (%) | 100% |

## 4. emergency measures

| | |
|---|---|
| A. When it gets into your eyes | Get urgent medical attention |
| | Wash skin and eyes immediately with running water for at least 20 minutes upon contact with substances |
| B. When you come into contact with your skin | If it is a hot material, soak or wash the affected area in a large amount of cold water to remove heat |
| | Get urgent medical attention |
| | Remove contaminated clothes and shoes and isolate contaminated areas |
| | Wash skin and eyes immediately with running water for at least 20 minutes upon contact with substances |
| | Prevent the spread of contaminated areas during minor skin contact |
| | Seek medical measures and advice if skin irritation occurs. |
| | Take off contaminated clothing and wash it before using it again. |
| C. When you inhale it | Move to a place with fresh air |
| | Please keep it warm and stable |
| | Seek medical measures and advice if exposed or concerned about exposure. |
| | Don't make me vomit. |
| D. When I ate it | If you eat or inhale substances, do not ventilate using mouth-to-mouth mouth exercise and use appropriate respiratory equipment |
| | If you have swallowed, see a medical doctor immediately. |
| | Don't make me vomit. |
| E. Other precautions of doctors | Contact the medical staff in case of exposure and take special emergency measures such as follow-up. |
| | Ensure that medical personnel are aware of the substance and take protective measures |

## 5. How to deal with explosion and fire

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| a. Proper (inappropriate) digestive medicine | Use alcohol foam, carbon dioxide or water spray for digestion related to this substance |
| | Use dry sand or soil for asphyxiation |
| b. Certain hazards arising from chemicals | During burning, irritating and very toxic gases can be generated by pyrolysis or combustion |
| | Containers may explode when heated |
| | Some may burn but do not ignite easily |
| | Non-inflammable or material itself does not burn, but decomposes when heated to cause corrosive/toxic fumes |
| C. Protective equipment and preventive measures to be worn in case of fire extinguishing | Rescuers should wear appropriate protective gear. |
| | Digest away from the area and keep a safe distance |
| | Please be careful as it may melt and be transported |
| | Dig a ditch for the disposal of the digester so that the material does not scatter |
| | If it's not dangerous, move the container out of the fire area |
| | In case of tank fire, extinguish fire at maximum distance or use unmanned fire extinguishing equipment |
| | In case of tank fire, cool the container with plenty of water even after extinguishing |
| | In case of a tank fire, immediately withdraw from the pressure release unit if there is a high pitch or the tank discoloration |
| | In the event of a tank fire, step back from the tank engulfed in flames |
| | In case of tank fire, use unmanned fire extinguishing equipment and, if impossible, leave to burn |

## 6. How to deal with leakage accidents

| | |
|---|---|
| A. Measures and protective equipment necessary to protect the human body | Wipe off any spills immediately, and follow the precautions of the protective equipment.<br>Isolate the contaminated area.<br>Those who do not need to enter or are not equipped with protective equipment should not enter.<br>Remove all ignition sources<br>If it is not dangerous, stop the leak |
| A. Measures and protective equipment necessary to protect the human body | Do not touch damaged containers or leaks without wearing proper protective clothing<br>Cover with plastic sheet to stop diffusion<br>Pay attention to substances and conditions that should be avoided |
| B. Measures necessary to protect the environment | Prevent inflows into waterways, sewers, cellars, and enclosed spaces |
| C. Methods of purification or removal | Absorb spills with inert substances (e.g., dry sand or soil) and place them in a chemical waste container.<br>Absorb liquid and wash off contaminated areas with detergent and water. |

## 7. HANDLING AND STORING METHOD

| | |
|---|---|
| A. Safety instructions | Follow all MSDS/label precautions as product debris may remain after the container has been emptied.<br>Use carefully when handling/storing.<br>Open the cap carefully before opening.<br>Avoid long-term or continuous skin contact.<br>Do not breathe steam from heated materials.<br>Do not enter the storage area without proper ventilation.<br>Pay attention to substances and conditions that should be avoided<br>Do not handle all safety precautions until you have read and understood them.<br>Wash the handling area thoroughly after handling. |
| B. A safe way to store | Drain the empty drum completely and block it properly, immediately return it to the drum controller or arrange it properly.<br>Store in a locked storage area. |

## 8. Anti-exposure and personal protective equipment

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|---|---|
| A. Chemical exposure standards, biological exposure standards, etc | |
| domestic regulations | No data |
| ACGIH regulations | No data |
| biological exposure standards | No data |
| Other exposure criteria | No data |
| B. Proper engineering management | Use process isolation, local exhaust, or other engineering management to adjust the air level below the exposure limit.<br>Install face wash facilities and safety showers for facilities that store or use this substance. |
| C. Personal protective equipment | |
| Respiratory protection | Wear respirators certified by the Occupational Safety and Health Agency that conform to the physicochemical properties of exposed gases/liquid<br>"For gas/liquid substances, the following respirator is recommended<br>-Isolated front gas mask (for organic compounds (for acid gases in case of acid gases) or Isolated front gas mask (for organic compounds (for acid gases in case of acid gases) or direct front gas mask (for organic compounds (for acid gases in case of acid gases) or on the other hand gas mask (for organic compounds (for acid gases in case of acid gases) or electric gas mask" |
| eye protection | If oxygen is low (<19.5%), wear a vent mask or self-contained air respirator<br>To protect your eyes from vaporized organic substances that cause eye irritation or other health problems, wear safety or breathable safety glasses |

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| Hand protection | Install emergency cleaning facilities (shower type) and face wash facilities in locations where workers can access them |
| physical protection | Wear protective gloves of appropriate material considering the physical and chemical properties of chemicals |
| | Wear protective clothing of appropriate material considering the physical and chemical properties of the chemical |

## 9. physicochemical properties

| | |
|---|---|
| A. Appearance | |
| character | Liquid |
| Color | No data |
| I. The smell | No data |
| C. Smell threshold | No data |
| D. pH | No data |
| E. Melting/freezing point | < -20 ℃ |
| F. Initial boiling point and boiling point range | 155 ~ 217℃ |
| G. A flashpoint | > 25 ℃ |
| H. Evaporation rate | No data |
| I. Flammable (solid, gas) | No data |
| J. Upper/lower limits on the range of flammables or explosions | 7.0 / 0.6 % |
| J. Steam pressure | 3-12 hPa (37.8℃) |
| T. Solubility | (Insoluble) |
| F. Steam density | No data |
| Ha. Specific gravity | 0.782-0.799 (g/㎤, 15℃) |
| G. N-octanol/water distribution coefficient (Kow) | 2.1 to 6 (estimated) |
| You. Natural firing temperature | (>200℃) |
| More. Decomposition temperature | No data |
| R. Viscosity | No data |
| M. molecular weight | No data |

## 10. Safety and responsiveness

| | |
|---|---|
| a. Chemical stability and possibility of adverse reactions | Can decompose at high temperatures to produce toxic gases |
| | Containers may explode when heated |
| | Some may burn but do not ignite easily |
| | Non-inflammable or material itself does not burn, but decomposes when heated to cause corrosive/toxic fumes |
| B. Conditions to avoid | Ignition sources such as heat, spark, flame, etc |
| C. Substances that should be avoided | combustible substances |
| D. Hazardous substances produced during decomposition | During burning, irritating and very toxic gases can be generated by pyrolysis or combustion |
| | Corrosive/toxic fumes |

## 11. information about toxicity

| | |
|---|---|
| A. Information on most likely exposure routes | No data |
| B. Health hazard information | |
| acute toxicity | |
| an oral form | LD50 > 5000 ㎎/㎏ Rat |
| transdermal skin | LD50 > 3160 ㎎/㎏ Rabbit |
| Inhale | No data |
| Corrosive or irritable skin | Normal stimulation (rabbit) |
| Severe eye damage or irritation | Non-polar (rabbit) |
| respiratory sensitivity | No data |
| skin sensitivity | No data |
| carcinogenicity | |
| Occupational Safety and Health Act | No data |
| Ministry of Employment and Labor Examination | No data |
| IARC | No data |

| | |
|---|---|
| OSHA | No data |
| ACGIH | No data |
| NTP | No data |
| EU CLP | 1B |
| germ cell mutagenicity | ** EU CLP: 1B |
| reproductive toxicity | No data |
| Specific target organ toxicity (one exposure) | No data |
| Specific target organ toxicity (repeated exposure) | No data |
| Harmful to aspiration | No data |
| Other Hazardous Effects | No data |

## 12. environmental impact

| | |
|---|---|
| a. Ecotoxicity | |
| Fish | No data |
| crustaceans | LC50 4.3 ㎎/ℓ 96 hr 기타 (Crangon crangon) |
| bird | No data |
| B. Residual and degradable | |
| Residuality | log Kow 2.1 to 6 (estimated) |
| Degradable | No data |
| C. Bio-enriched | |
| Concentration | No data |
| biodegradable | No data |
| D. Soil mobility | No data |
| E. Other harmful effects | No data |

## 13. Precautions for disposal

| | |
|---|---|
| A. Method of disposal | Dispose of contents and containers as stipulated in the Waste Management Act. |
| B. Precautions for disposal | Dispose of the contents containers (in accordance with the relevant laws and regulations). |

## 14. Information required for transportation

| | |
|---|---|
| A. United Nations No | No UN transport hazard classification information |
| B. Proper shipping name | Not applicable |
| C. Risk rating in transportation | Not applicable |
| D. Courage rating | Not applicable |
| E. Marine pollutants | No data |

F. Special safety measures that users need or need to know about transportation or transportation

| | |
|---|---|
| emergency measures in case of fire | Not applicable |
| Emergency measures in case of spill | Not applicable |

## 15. Status of legal regulations

| | |
|---|---|
| A. Regulations under the Occupational Safety and Health Act | Not applicable |
| B. Regulations under the Chemical Substances Control Act | Not applicable |
| C. Regulations under the Dangerous Goods Safety Management Act | Not applicable |
| D. Regulations under the Waste Management Act | Not applicable |
| E. Other regulations under domestic and foreign laws | |
| domestic regulation | |
| Other domestic regulations | Not applicable |
| Foreign regulations | |
| US Administrative Information (OSHA Regulations) | Not applicable |
| US Management Information (CERCLA Regulations) | Not applicable |
| US Management Information (EPCRA 302) | Not applicable |
| US Management Information (EPCRA 304) | Not applicable |
| US Management Information (EPCRA 313) | Not applicable |

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|---|---|
| US Management Information (Rotterdam Convention Material) | Not applicable |
| US Management Information (Stockholm Convention Material) | Not applicable |
| US Management Information (Montreal's emotional material) | Not applicable |
| EU classification information (final classification results) | Carc. Cat. 2; R45 - Muta. Cat. 2; R46 - Xn; R65 |
| EU classification information (danger phrases) | R45, R46, R65 |
| EU classification information (safety equipment) | S53, S45 |

## 16. Other references

A. Source of data

UNI. AKRON (Melting Point/Frozen Point)

IUCLID (F. Initial Boiling Point and Boiling Point Range)

UNI. AKRON (G. Flash Points)

UNI. AKRON (upper/lower limit of range of flammables or explosions)

IUCLID (C. Steam Pressure)

UNI. AKRON (Tar. Solubility)

IUCLID (B. Specific gravity)

UNI. AKRON (You. Natural Firing Temperature)

IUCLID (Old)

IUCLID (transdermal)

IUCLID (crustacea)

IUCLID (Residual)

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| B. Date of initial preparation | 2025-03-31 |
| C. Number of revisions and last revision date | |
| Number of revisions | 회 |
| Last revision date | 0 |
| D. Other | |

Material safety data (MSDS) has been edited and partially modified by referring to MSDS provided by the Korea Occupational Safety and Health Age It's data."