# SAFETY DATA SHEET

### 1. Identification

Product identifier AFE GREASE

Other means of identification

 SDS number
 1030-T25320-1

 Product code
 AFE+70, AFE+400

Recommended use Industrial lubricating grease

**Recommended restrictions** None known.

Manufacturer/Importer/Supplier/Distributor information

THK Co.,LTD

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## 2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Sensitization, skin Category 1

OSHA defined hazards Not classified.

Label elements



Signal word Warning

**Hazard statement** May cause an allergic skin reaction.

**Precautionary statement** 

**Prevention** Avoid breathing mist/vapor. Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves.

**Response** If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise

classified (HNOC)

otherwise None known.

Supplemental information None.

## 3. Composition/information on ingredients

#### **Mixtures**

Chemical name	CAS number	%
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	2 - 5
Dihydro-3-(tetrapropenyl)furan-2,5-dione	26544-38-7	0.3 - 0.7

Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Components not listed are either non-hazardous or are below reportable limits. The exact concentrations of the above listed chemicals are being withheld as a trade secret.

#### 4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Remove contaminated clothing immediately and wash skin with soap and water. In case of Skin contact

eczema or other skin disorders: Seek medical attention and take along these instructions.

Rinse with water. Get medical attention if irritation develops and persists. Eve contact

Rinse mouth. Get medical attention if symptoms occur. Ingestion May cause an allergic skin reaction. Dermatitis. Rash. Most important

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation.

Symptoms may be delayed.

Ensure that medical personnel are aware of the material(s) involved, and take precautions to **General information** 

protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Extinguish with foam, carbon dioxide or dry powder. Do not use water or halogenated extinguishing media.

Specific hazards arising from the chemical

Thermal decomposition may produce smoke, oxides of carbon and lower molecular weight organic compounds whose composition have not been characterized.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Use water spray to cool unopened containers. Use standard firefighting procedures and consider

the hazards of other involved materials.

General fire hazards Will burn if involved in a fire.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. In case of spills, beware of slippery floors and surfaces. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

**Environmental precautions** 

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Avoid breathing mist/vapor. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Be aware of potential for surfaces to become slippery. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

Occupational exposure limits No exposure limits noted for ingredient(s).

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Exposure guidelines** 

Appropriate engineering controls

Occupational Exposure Limits are not relevant to the current physical form of the product. Good general ventilation 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.

Individual protection measures, such as personal protective equipment

Wear safety glasses with side shields (or goggles). Eye/face protection

Skin protection

Hand protection Wear protective gloves. Suitable gloves can be recommended by the glove supplier. Nitrile gloves

are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is

advisable.

Skin protection

Other Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory protection In case of inadequate ventilation or risk of inhalation of oil mist, suitable respiratory equipment with

particulate filter and organic vapor cartridges can be used. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR

1910.134.

**Thermal hazards** When material is heated, wear gloves to protect against thermal burns.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

**Appearance** 

Physical state Solid.
Form Paste.
Color Light brown.
Odor Recognizable.
Odor threshold Not available.

**pH** Material is non soluble in water.

Melting point/freezing point
Initial boiling point and boiling

Not available.

496.4 °F (258 °C)

range

Flash point 428 °F (220 °C) Setaflash

**Evaporation rate** Not available.

Flammability (solid, gas) Will burn if involved in a fire.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not applicable.

Vapor density Not applicable.

Relative density 0.98 (68 °F (20 °C))

Solubility(ies)

Solubility (water) Insoluble.

Partition coefficient Not applicable.

(n-octanol/water)

Auto-ignition temperatureNot applicableDecomposition temperatureNot available.ViscosityNot applicable.

Other information

**Explosive properties** Not explosive. **Oxidizing properties** Not oxidizing.

### 10. Stability and reactivity

**Reactivity**The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

Will not occur.

Conditions to avoid Heat, sparks, flames, elevated temperatures. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

**Hazardous decomposition** 

products

Carbon oxides.

### 11. Toxicological information

Information on likely routes of exposure

**Inhalation** Inhalation of oil mist or vapors formed during heating of the product will irritate the respiratory

system and provoke coughing.

**Skin contact** May cause an allergic skin reaction.

**Eye contact** Direct contact with eyes may cause temporary irritation.

**Ingestion** Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

**Acute toxicity** The harmful effects may increase when exposed to used grease.

Components Species Test Results

Dihydro-3-(tetrapropenyl)furan-2,5-dione (CAS 26544-38-7)

Acute Dermal

LD50 Rabbit > 5000 mg/kg

Oral

LD50 Rat > 2000 mg/kg

Skin corrosion/irritation None known.
Serious eye damage/eye None known.

irritation

Respiratory or skin sensitization

Respiratory sensitization None known.

**Skin sensitization** May cause an allergic skin reaction.

Germ cell mutagenicity None known.

**Carcinogenicity** Prolonged and repeated contact with used grease may cause serious skin diseases.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

**NTP Report on Carcinogens** 

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Reproductive toxicity None known.

Specific target organ toxicity - None known.

single exposure

Specific target organ toxicity -

repeated exposure

None known.

**Aspiration hazard**Due to the physical form of the product it is not an aspiration hazard.

12. Ecological information

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential None known.

**Mobility in soil** The product is insoluble in water and will spread on water surfaces.

Other adverse effects Greases are generally hazardous to the environment.

13. Disposal considerations

**Disposal instructions**Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations**Dispose in accordance with all applicable regulations.

**Hazardous waste code**The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

### 14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

**IMDG** 

Not regulated as dangerous goods.

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

Not applicable.

the IBC Code

## 15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Toxic Substances Control Act (TSCA)

All components on the TSCA 8(b) inventory are designated "active".

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Yes

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

chemical

Classified hazard

Respiratory or skin sensitization

categories

SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

#### **US** state regulations

**US. Massachusetts RTK - Substance List** 

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act** 

Not listed

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed

**US. Rhode Island RTK** 

Not regulated.

### **California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

#### **International Inventories**

**Philippines** 

Country(s) or region

Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No

(PICCS)

Inventory name

Taiwan Taiwan Chemical Substance Inventory (TCSI)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

Yes

Philippine Inventory of Chemicals and Chemical Substances

# 16. Other information, including date of preparation or last revision

**Issue date** 24-February-2022

Revision date - 01

Further information HMIS® is a registered trade and service mark of the ACA.

B - Safety Glasses or goggles, Gloves

HMIS® ratings Health: 2

Flammability: 1 Physical hazard: 0 Personal protection: B

NFPA ratings



**List of abbreviations** CAS: Chemical Abstract Service.

DOT: Department of Transportation (49 CFR 172.101).

IATA: International Air Transport Association.

IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous

Chemicals in Bulk.

IMDG: International Maritime Dangerous Goods.

LD50: Lethal Dose, 50%.

MARPOL: International Convention for the Prevention of Pollution from Ships.

**References** EPA: AQUIRE database

HSDB® - Hazardous Substances Data Bank

IARC Monographs. Overall Evaluation of Carcinogenicity

**Disclaimer** This information is provided without warranty. The information is believed to be correct. This

information should be used to make an independent determination of the methods to safeguard

workers and the environment.

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AFE GREASE SDS US

On inventory (yes/no)\*

No

<sup>\*</sup>A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).