

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture AFC GREASE
Registration number -
Synonyms None.
SDS number 1030-T21996-2
Product code AFC+70, AFC+400
Issue date 17-February-2012
Version number 03
Revision date 29-September-2019
Supersedes date 03-December-2015

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

Identified uses Industrial lubricating grease (Package size 70gr and 400gr)
Uses advised against None known.

1.3. Details of the manufacturer & supplier of the safety data sheet

THK Co.,LTD
HEAD OFFICE: 2-12-10, Shibaura, Minato-ku, Tokyo 108-8506 Japan
THK GmbH: Kaiserswerther Strasse 115, D-40880 Ratingen, Germany
Telephone +81-03-5730-3865(Japan) +49-(0)2102-7425-555 (THK GmbH)
E-mail info-msds@thk.eu (THK GmbH), thk022@thk.co.jp (THK Co., LTD)

1.4. Emergency telephone number +49-(0) 2102-7425-222 at workday 8 am - 5 pm (THK GmbH)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This mixture does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Not classified for health hazards. However, occupational exposure to the mixture or substance(s) may cause adverse health effects.

Hazard summary

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms None.
Signal word None.
Hazard statements The mixture does not meet the criteria for classification.

Precautionary statements

Prevention Observe good industrial hygiene practices.
Response Wash hands after handling.
Storage Store away from incompatible materials.
Disposal Dispose of containers in accordance with local authority requirements.

Supplemental label information EUH210 - Safety data sheet available on request.

2.3. Other hazards This mixture does not meet vPvB / PBT criteria of Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
3,3'-dicyclohexyl-1,1'-methylenebis(4,1-phenylene)diurea	1 - 15	Proprietary 406-370-3	-	616-094-00-7	
Classification:	Aquatic Chronic 4;H413				

Chemical name	%	CAS-No. / EC No.	REACH Registration		Notes
			No.	Index No.	
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	1 -5	Proprietary 270-128-1	-	-	
Classification:	Aquatic Chronic 3;H412				
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	1 -2	Proprietary 272-028-3	-	-	
Classification:	Skin Irrit. 2;H315, Eye Irrit. 2;H319				
Sodium nitrite	<1	Proprietary 231-555-9	-	007-010-00-4	
Classification:	Ox. Sol. 3;H272, Acute Tox. 3;H301, Aquatic Acute 1;H400				
Distillates (petroleum), hydrotreated heavy paraffinic	0.1 -0.5	64742-54-7 265-157-1	-	649-467-00-8	
Classification:	-				
Distillates (petroleum), hydrotreated light naphthenic	0.1 -0.5	Proprietary 265-156-6	-	649-466-00-2	
Classification:	-				

List of abbreviations and symbols that may be used above

Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method", Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

The two petroleum substances in the product – Distillates (petroleum), hydrotreated heavy paraffinic - Distillates (petroleum), hydrotreated light naphthenic - contain less than 3 % DMSO extract as measured by IP 346.

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The full text for all H-statements is displayed in section 16. Due to the high viscosity the product is not an aspiration hazard.

SECTION 4: First aid measures

General information First aid personnel must be aware of own risk during rescue.

4.1. Description of first aid measures

Inhalation Move affected person into fresh air and keep warm. If breathing is difficult, give oxygen. Get medical attention if any discomfort continues.

Skin contact Remove contaminated clothing. Wash with soap and water. Get medical attention if irritation develops and persists.

Eye contact Flush thoroughly with water. If irritation occurs, get medical assistance. Make sure to remove any contact lenses from the eyes before rinsing.

Ingestion Immediately rinse mouth and drink plenty of water. Never give anything by mouth to an unconscious person. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed Inhalation of oil mist or vapours formed during heating of the product will irritate the respiratory system and provoke coughing.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically. The effects might be delayed.

SECTION 5: Firefighting measures

General fire hazards The product is not flammable.

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media Do not use water or halogenated extinguishing media.

5.2. Special hazards arising from the substance or mixture Thermal decomposition may produce smoke, oxides of carbon and lower molecular weight organic compounds whose composition have not been characterised.

5.3. Advice for firefighters

Special protective equipment for firefighters Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.

Special fire fighting procedures Use standard firefighting procedures and consider the hazards of other involved materials. Containers close to fire should be removed or cooled with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** Avoid contact with skin. Wear suitable protective clothing, gloves and eye/face protection. In case of spills, beware of slippery floors and surfaces.
- For emergency responders** Keep unnecessary personnel away.

6.2. Environmental precautions Do not contaminate water. Contact local authorities in case of spillage to drain/aquatic environment.

6.3. Methods and material for containment and cleaning up Absorb spillage with non-combustible, absorbent material. Clean contaminated area with oil-removing material.

6.4. Reference to other sections See Section 8 for personal protective equipment. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling Avoid contact with skin. Always remove grease with soap and water or skin cleaning agent, never use organic solvents. Wear appropriate personal protective equipment. Be aware of potential for surfaces to become slippery. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities Keep container in a well-ventilated place. Store away from incompatible materials.

7.3. Specific end use(s) Industrial lubricating grease.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

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

Recommended monitoring procedures Follow the schedule for work place measurements.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Provide adequate ventilation and minimise the risk of inhalation of vapours and oil mist. Provide access to washing facilities including soap, skin cleanser and fatty cream.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Keep working clothes separately. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear approved safety goggles.

Skin protection -

Hand protection

Wear protective gloves. 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/splash 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 rules 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 manufacturer and model.

- 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 combination filter (type A2/P2) can be used.

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

Hygiene measures 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.

Environmental exposure controls Contain spills and prevent releases and observe national regulations on emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Buttery.
Physical state	Solid.
Form	Buttery.
Colour	Brown.
Odour	Mild.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	201.0 °C (393.8 °F) Setaflash Closed Cup (ISO 3679)
Evaporation rate	Not available.
Flammability (solid, gas)	No data available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0.9
Solubility(ies)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	No relevant additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity	This product may react with strong oxidising agents.
10.2. Chemical stability	Stable at normal conditions.
10.3. Possibility of hazardous reactions	Will not occur.
10.4. Conditions to avoid	Heat, sparks, flames, elevated temperatures.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NO _x). Sulphur oxides. Sodium oxides. Phosphorus oxides. Calcium oxides. Silicon oxides. Aluminum oxides. Formaldehyde. PAH (polycyclic aromatic hydrocarbons).

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	Inhalation of oil mist or vapours formed during heating of the product will irritate the respiratory system and provoke coughing.
Skin contact	Prolonged or frequent contact may cause redness, itching, irritation, eczema/chaps and oil acne.
Eye contact	May cause eye irritation on direct contact.
Ingestion	Ingestion may cause irritation and malaise.
Symptoms	Inhalation of oil mist or vapours formed during heating of the product will irritate the respiratory system and provoke coughing.

11.1. Information on toxicological effects

Acute toxicity	The harmful effects may increase in used grease.	
Components	Species	Test Results
Sodium nitrite (CAS Proprietary)		
Acute		
Inhalation		
LC50	Rat	5.5 mg/l, 4 Hours
Oral		
LD50	Rat	158 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	May cause eye irritation on direct contact.	
Respiratory sensitisation	Due to lack of data the classification is not possible.	
Skin sensitisation	Due to lack of data the classification is not possible.	
Germ cell mutagenicity	Due to lack of data the classification is not possible.	
Carcinogenicity	Prolonged and repeated contact with used grease may cause serious skin diseases, such as dermatitis and skin cancer.	

IARC Monographs. Overall Evaluation of Carcinogenicity

Sodium nitrite (CAS Proprietary) 2A Probably carcinogenic to humans.

Reproductive toxicity	Due to lack of data the classification is not possible.	
Specific target organ toxicity - single exposure	Due to lack of data the classification is not possible.	
Specific target organ toxicity - repeated exposure	Due to lack of data the classification is not possible.	
Aspiration hazard	Based on viscosity, the product is not anticipated to be an aspiration hazard.	
Mixture versus substance information	The product is a mixture.	
Other information	No data available.	

SECTION 12: Ecological information

12.1. Toxicity	The product contains a substance which is very toxic to aquatic organisms.		
Components	Species	Test Results	
Sodium nitrite (CAS Proprietary)			
Aquatic			
Crustacea	EC50	Greasyback shrimp (Metapenaeus ensis)	16.14 - 26.61 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.15 - 0.25 mg/l, 96 hours
12.2. Persistence and degradability	None known.		
12.3. Bioaccumulative potential	None known.		
Partition coefficient n-octanol/water (log Kow)	Not available.		
Bioconcentration factor (BCF)	Not available.		
12.4. Mobility in soil Mobility in general	Not known. The product contains substances, which are insoluble in water and which may spread on water surfaces.		
12.5. Results of PBT and vPvB assessment	This mixture does not meet vPvB / PBT criteria of Regulation (EC) No 1907/2006, Annex XIII.		
12.6. Other adverse effects	Not available.		

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations.
Contaminated packaging	Since emptied containers retain product residue, follow label warnings even after container is emptied.
EU waste code	16 03 06

SECTION 14: Transport information

ADR

14.1. - 14.6.: Not regulated as dangerous goods.

RID

14.1. - 14.6.: Not regulated as dangerous goods.

ADN

14.1. - 14.6.: Not regulated as dangerous goods.

IATA

14.1. - 14.6.: Not regulated as dangerous goods.

IMDG

14.1. - 14.6.: Not regulated as dangerous goods.

14.7. Transport in bulk Not available.
according to Annex II of
MARPOL 73/78 and the IBC
Code

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (CAS Proprietary)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

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

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

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

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Sodium nitrite (CAS Proprietary)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended and respective national laws implementing EC directives. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 as amended.

National regulations

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration.
PBT: Persistent, bioaccumulative and toxic.

vPvB: Very Persistent and very Bioaccumulative.

LC50: Lethal Concentration 50%.

LD50: Lethal Dose 50%.

EC50: Effective Concentration 50%.

EU Regulation (EC) 1272/2008 (CLP Regulation) as amended

References

Information on evaluation method leading to the classification of mixture

The mixture is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12.

Full text of any H-statements not written out in full under Sections 2 to 15

H272 May intensify fire; oxidiser.

H301 Toxic if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

Training information

Follow training instructions when handling this material.

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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