

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	AFG GREASE
Registration number	-
Synonyms	None.
SDS number	1030-T21997-1-GBR
Product code	AFG+70, AFG+400
Issue date	17-February-2012
Version number	02
Revision date	04-December-2015
Supersedes date	17-February-2012

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 supplier of the safety data sheet

THK Co.,LTD
HEAD OFFICE: 3-11-6, Nishi-Gotanda, Shinagawa-ku, Tokyo 141-8503 Japan
THK GmbH: Kaiserswerther Strasse 115, D-40880 Ratingen, Germany

Telephone +49-(0)2102-7425-555 (THK GmbH)

e-mail info-msds@thk.eu, thk022@thk.co.jp

1.4. Emergency telephone number +49-(0) 2102-7425-222 at workday 8 am - 6 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

Health hazards		
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.

Hazard summary Inhalation of oil mist or vapours formed during heating of the product will irritate the respiratory system and provoke coughing. Prolonged or repeated skin contact may cause drying, cracking, or irritation.

2.2. Label elements

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

Contains: 3,3'-dicyclohexyl-1,1'-methylenebis (4,1-phenylene)diurea

Hazard pictograms



Signal word Warning

Hazard statements
H317 May cause an allergic skin reaction.

Precautionary statements

Prevention

P261 Avoid breathing vapour.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.

Response

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P333 + P313
P363

If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

Storage

Store away from incompatible materials.

Disposal

P501

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

Supplemental label information None.

2.3. Other hazards Not available.

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:	Skin Sens. 1;H317, Aquatic Chronic 4;H413				
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 Dam. 1;H318, Aquatic Chronic 2;H411				
Sodium nitrite	0.1-<1.0	Proprietary 231-555-9	-	007-010-00-4	
Classification:	Ox. Sol. 3;H272, Acute Tox. 3;H301, Aquatic Acute 1;H400				

Composition comments * All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The full text for all R- and H-phrases is displayed in section 16.

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

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

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

May cause an allergic skin reaction.

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	Not available.

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. For waste disposal, see section 13 of the SDS.

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 level (DNEL)	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 GEN 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. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.
- 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)	Not 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 available.
Oxidising properties	Not available.
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 (NOx). Sulphur oxides. Sodium oxides. Phosphorus oxides. Calcium oxides. Silicon oxides. Aluminum oxides. Formaldehyde. PAH (polycyclic aromatic hydrocarbons).

SECTION 11: Toxicological information

General information	Not available.
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	May cause eczema-like skin disorders (dermatitis).
11.1. Information on toxicological effects	
Acute toxicity	Inhalation of oil mist or vapours formed during heating of the product will irritate the respiratory system and provoke coughing. The harmful effects may increase in used grease. Ingestion may cause irritation and malaise.

Components	Species	Test results
Sodium nitrite (CAS Proprietary)		
Acute		
<i>Inhalation</i>		
LC50	Rat	5.5 mg/l, 4 Hours
<i>Oral</i>		
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	None known.	
Skin sensitisation	May cause an allergic skin reaction.	
Germ cell mutagenicity	None known.	
Carcinogenicity	Prolonged and repeated contact with used grease may cause serious skin diseases, such as dermatitis and skin cancer.	
Reproductive toxicity	None known.	
Specific target organ toxicity - single exposure	None known.	
Specific target organ toxicity - repeated exposure	None known.	
Aspiration hazard	None known.	
Mixture versus substance information	Not available.	
Other information	Not 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		
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	Not known.	
Mobility in general	The product contains substances, which are insoluble in water and which may spread on water surfaces.	
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.	
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 05*

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

ADN

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code Not available.

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 (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 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

Not listed.

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.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding, as amended

Not listed.

Other EU regulations

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

Sodium nitrite (CAS Proprietary)

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

3,3'-dicyclohexyl-1,1'-methylenebis (4,1-phenylene)diurea (CAS Proprietary)

Sodium nitrite (CAS Proprietary)

Directive 94/33/EC on the protection of young people at work

3,3'-dicyclohexyl-1,1'-methylenebis (4,1-phenylene)diurea (CAS Proprietary)

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. Young people under 18 years old are not allowed to work with this product according to the EU Directive 94/33/EC on the protection of young people at work. German water endangering class (VwVws) WGK 1 (slightly hazardous to water)

National regulations

Follow national regulation for work with chemical agents.

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.

References

Not available.

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.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
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.

Copyright © 2015 THK CO., LTD. All rights reserved.