บริษัท สยามภัณฑ์กรุ๊ป จำกัด (มหาชน)
SIAM PAN GROUP PUBLIC COMPANY LIMITED

488 ถนนนครสวรรค์ แขวงสี่แยกมหานาค เขตดุสิต กรุงเทพฯ 10300
โทร. 0-2280-0202 (38 คู่สาย) แฟกซ์ (66-2) 280-0690, 280-0691, 280-6309, 282-7918
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ทะเบียนเลขที่ บมจ.612
REGISTRATION No.612

Material Safety Data Sheet

Issued : September 28, 2016

1. PRODUCT IDENTIFICATION

Product - Trade name : Trane Super HT Extreme Pressure Grease

2. INGREDIENTS

Chemical Additive, Thickener and Base oil :

3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW :

Physical Appearance and Odor : amber viscous liquid, mild odor.

Warning Statements : COMBUSTIBLE LIQUID. EYE AND SKIN IRRITANT.

B. POTENTIAL HEALTH EFFECTS :

Acute Eye : May cause eye injury which may persist for several days.

Acute Skin : Skin absorption not likely. May cause redness, inflammation, on prolonged contact.

Acute Inhalation : Inhalation not likely. Mists may cause dizziness, headache, nausea, respiratory tract irritation.

Acute Ingestion : Practically non - toxic.

Chronic Effects : This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

4. FIRST AID MEASURES

FIRST AID MEASURES FOR ACCIDENTAL :

Eye Exposure : Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

Skin Exposure : In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re - use.

Inhalation : Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

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Ingestion : If victim is conscious and alert, give 2-3 glasses of water to drink and do not induce vomiting. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE :

No specific information found.

NOTES TO PHYSICIAN : All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

INGESTION : Highly viscous hydrocarbons similar to mineral oil are practically nontoxic. Induction of vomiting or gastric lavage is not necessary. Aspiration is generally not a problem but could pose a risk for young children who spontaneously vomit.

5. FIRE FIGHTING MEASURES

FIRE HAZARD DATA :

Flash Point : >270°C. Flammability Class : COMBUSTIBLE.

Method Used : Pensky - Martens Closed Cup

Flammability Limits (vol/vol%) :

Lower :	Upper :
0.9	7

Extinguishing Media : Recommended : dry chemical, foam, carbon dioxide, Not recommended : water (unless large excess is possible).

Special Fire Fighting Procedures : Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Move containers from fire area if you can do so without risk. Cool containers exposed to fire with water. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.

Unusual Fire and Explosion Hazards : Reacts with water releasing flammable isopropyl alcohol. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

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Hazardous Decomposition Materials (Under Fire Condition) :

oxide of aluminum

oxides of carbon

6. ACCIDENTAL RELEASE MEASURES

Evacuation Procedures and Safety : Wear appropriate protective gear for the situation. See Personal Protection information in Section 8. Eliminate all sources of ignition until the area is determined to be free from explosion or fire hazards. Place leaking containers in a well-ventilated area. WARNING : isopropyl alcohol will be released to the flush water and atmosphere.

Containment of Spill : Dike spill using absorbent or impervious materials such as earth, sand or clay. Stop leak if it can be done without risk.

Clean up and Disposal of Spill : Absorb with an inert absorbent. Shovel up into an appropriate closed container (see Section 7 : Handling and Storage). Use non-sparking tools. Recover material, if possible. Flush with copious amounts of water.

Environmental and Regulatory Reporting : Do not flush to drain. Runoff from fire control or dilution water may cause pollution. Spills may be reportable to the National Response Center (800-424-8802) and to state and /or local agencies. Prevent material from entering public sewer system or any waterways.

7. HANDLING AND STORAGE

Minimum / Maximum Storage Temperatures : No Data Available

Handling : Do not breathe vapors and mists. Avoid direct or prolonged contact with skin and eyes. Use nonsparking tools and grounded/bonded equipment and containers when transferring. Keep containers closed when not being used.

Storage : Store in tightly closed containers. Store in an area that is diked, well-ventilated, away from combustible material, away from ignition sources.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks : These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the

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need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13 : Disposal Considerations.

Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

Exposure Guidelines :

Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting OSHA requirements. The following limits (ACGIH, OSHA and other) apply to this material, where, if indicated, S =skin and C =ceiling limit :

OIL MIST, MINERAL

	Notes	TWA	STEL
ACGIH		5 mg/cu m	
OSHA		5 mg/cu m	

Engineering Controls :

Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures : general area dilution/exhaust ventilation, local exhaust ventilation at the point of generation.

Respiratory Protection :

When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with the latest OSHA standard (29 CFR 1910.134) and /or ANSI Z88.2 recommendations.

Under normal conditions, in the absence of other airborne contaminants, the following devices should provide protection from this material up to the conditions specified by OSHA/ANSI : Air-purifying (half - mark / full - face) respirator with cartridges / canister approved for use against dusts, mists and fumes.

Under conditions immediately dangerous to life or health, or

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	emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit.
Eye / Face Protection :	Eye and face protection requirements will vary dependent upon work environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material. It is generally regarded as good practice to wear a minimum of safety glasses with side shields when working in industrial environments.
Skin Protection :	Skin contact should be minimized through use of gloves and suitable long-sleeved clothing (i.e., shirts and pants). Consideration must be given both to durability as well as permeation resistance.
Work Practice Controls :	Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material : (1) Do not store, use, and / or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. (2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet . (3) Wash exposed skin promptly to remove accidental splashes of contact with this material.

9. PHYSICAL AND CHEMICALS PROPERTIES

	(Test Method)
Physical form :	Waxy solid
Colour :	Transparent
Odour :	-
pH of aq. soln.:	-
Boiling point :	-
Melting point :	-
Viscosity :	-
Flash point :	>270 °C
Flammability solid/gas :	N/A

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Auto flammability :	N/A
Explosive properties :	N/A
Oxidizing properties :	N/A
Vapour pressure :	Negligible at ambient temperatures.
Density :	-
Water solubility :	-
Other solubility :	-
Bulk density :	-
Partition coefficient octanol / water :	-
Explosion limits :	N/A

10. STABILITY AND REACTIVITY

Thermal decomposition :	Stable under normal conditions of use.
Hazardous Reactions :	None under normal conditions of use.

11 TOXICOLOGICAL DATA

Oral :	Expected to possess a relatively low degree of acute oral toxicity. (LD50 expected to be >2000 mg/kg.)
Dermal :	Expected to be practically non-toxic by dermal route.
Inhalation :	N/A

TOXIC EFFECTS

Skin :	Not expected to be an irritant.
Eye :	Not expected to be an irritant.

12. ECOLOGICAL INFORMATION

Biodegradation :	Expected to be ultimately biodegradable
Fish Toxicity :	No data
Bacterial Toxicity :	No data
WGK Class :	WGK 1, Self - Classification

13. DISPOSAL CONDITIONS : Dispose of according to a recognized method of chemical waste disposal.

14. TRANSPORT INFORMATION

		UN Number :	N/A
UN Name :	Not Assigned		
IMDG Code / Class :	Non Hazardous	**IMDG Code Page No :**	N/A
ICAO / IATA (Air) Class :	Non Hazardous	**Packing Group :**	N/A
RID / ADR Class :	Non Hazardous		
ADNR Class :	Non Hazardous		

15. REGULATORY INFORMATION

Occupational Exposure Limits : N/A