Safety Data Sheet
According to SS586:2014

PAG OIL, Denso ND8 8887200021

Version 1.0

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Section 1 Identification of the substance/mixture and of the company/undertaking

Product identifier:

Identification on the label/Trade name:	PAG OIL, Denso ND8 8887200021
Additional identification:	Not available
Identification of the product:	See section 3
Index Number:	Not available
REACH registration No.:	Not available

Relevant identified uses of the substance and uses advised against:

Identified uses:

Lubricant

Uses advised against:

Not available.

Details of the supplier of the safety data sheet:

Supplier(Manufacturer):	Dometic Private Ltd
Address:	18 Boon Lay Way #06-140 Trade Hub 21 609966 Singapore
Contact person(E-mail):	-
Telephone:	+65 6795 3177
Fax:	-

Emergency telephone Number:

+65 6795 3177Only available during office hours (8:30a.m.-17:30p.m. Beijing Time Zone)

Available outside office hours? YES [ ] NO [X]

Section 2 Hazards Identification

Classification of the substance/mixture:

GHS Classification Hazardous to the aquatic environment - long-term hazard Category 3

label elements:

Hazard Pictograms:	No hazard pictogram is used.
Signal Word(S):	No signal word is used.
Hazard Statement:	H412 Harmful to aquatic life with long lasting effects.
Precautionary statement:	P391 Avoid release to the environment. P501 Dispose of contents/container in according with local regulation.

Other hazards:

Not available.

Section 3 Composition/information on ingredients

Substance/Mixture: Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Tris(methylphenyl)phosphat	N/A	1330-78-5	215-548-8	<1%
2,6-Di-t-butyl-4-methyl-phenol	N/A	128-37-0	204-881-4	<0,5%
Tris(nonylphenyl) phosphite	N/A	26523-78-4	247-759-6	<0,3%

Section 4 First aid measures

Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

In case of inhalation:

Remove person from danger area. Supply person with fresh air and consult doctor according to symptoms.

In case of skin contact:

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

In case of eyes contact:

Remove contact lenses. Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

In case of ingestion:

Rinse the mouth thoroughly with water. Do not induce vomiting. Consult doctor immediately.

Never pour anything into the mouth of an unconscious person.

Most important symptoms and effects, both acute and delayed:

The product is not classified as harmful to human health effect.

Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Fire-Fighting measures

Extinguishing media:

Suitable extinguishing media: Water jet spray/foam/CO2/dry extinguisher.

Unsuitable extinguishing media: High volume water jet.

Special hazards arising from the substance or mixture In case of fire the following can develop: Oxides of carbon, Toxic gases.

Special fire fighting methods and special protective actions for fire-fighters: In case of fire and/or explosion do not breathe fumes. Protective respirator with independent air supply. According to size of fire Full protection, if necessary Dispose of contaminated extinction water according to official regulations.

Section 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Ensure sufficient supply of air. Avoid contact with eyes or skin. If applicable, caution - risk of slipping.

For emergency responders: Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

Environmental Precautions: If leakage occurs, dam up. Resolve leaks if this possible without risk. Prevent surface and ground-water infiltration, as well as ground penetration. Prevent from entering drainage system. If accidental entry into drainage system occurs, inform responsible authorities.

Methods for Containment and Cleaning up: Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

Reference to other sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

Additional information: Not applicable.

Section 7 Handling and storage

Precautions for safe handling:

Protective measures: Ensure good ventilation. Avoid aerosol formation. Avoid inhalation of the vapours. Keep away from sources of ignition - Do not smoke. Avoid contact with eyes or skin. Eating, drinking, smoking, as well as food-storage, is prohibited in work-room. Observe directions on label and instructions for use. Use working methods according to operating instructions.

Advice on general occupational hygiene: General hygiene measures for the handling of chemicals are applicable. Wash hands before breaks and at end of work. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Conditions for safe storage, including any incompatibilities: Keep out of access to unauthorised individuals. Not to be stored in gangways or stair wells. Store product closed and only in original packing. Store at room temperature.

Specific end use(s): Not applicable.

Section 8 Exposure Controls/Personal Protection

Control parameters:

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA:

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US ACGIH Threshold Limit Values (TLV)	2,6-di-tert-butyl-4-methylphenol	Butylated hydroxytoluene	2 mg/m3	Not Available	Not Available	TLV® Basis: URT irr

EMERGENCY LIMITS:

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
2,6-di-tert-butyl-4-methylphenol	Bis(1,1-dimethylethyl)-4-methylphenol, 2,6-; (BHT (food grade); 2,6-Di-tert-butyl-p-cresol)	6 mg/m3	16 mg/m3	180 mg/m3

Ingredient	Original IDLH	Revised IDLH
tricresyl phosphate	Not Available	Not Available
2,6-di-tert-butyl-4-methylphenol	Not Available	Not Available
tris(monononylphenyl)phosphite	Not Available	Not Available

Exposure controls:

Appropriate engineering controls: Ensure good ventilation. This can be achieved by local suction or general air

extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

Individual protection measures, such as personal protective equipment:

Eye/face protection:	Tight fitting protective goggles with side protection (EN 166).
Hand protection:	Chemical resistant protective gloves (EN 374). Recommended: Protective nitrile gloves (EN 374) Minimum layer thickness in mm:0,3 Permeation time (penetration time) in minutes:480 The recommended maximum wearing time is 50% of breakthrough time. Protective hand cream recommended.
Body protection:	Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)
Respiratory protection:	Normally not necessary.
Thermal hazards:	Wear suitable protective clothing to prevent heat.
Environmental exposure controls:	Avoid discharge into the environment. According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

Information on basic physical and chemical properties:

Appearance:	Liquid
Colour:	Light yellow/Colourless
Odour:	Characteristic
Odour threshold:	Not available
pH:	Not available
Melting point/range (°C):	-45 °C
Boiling point/range (°C):	Not available
Flash point (°C):	204 °C (Cleveland, open cup)
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower flammability/explosive limits:	Not available
Vapour pressure (20°C):	Not available
Vapour density:	Not available
Density:	0,99 g/cm3 (15°C)
Bulk density (kg/m^3):	Not available
Water solubility (g/l):	Insoluble
n-Octanol/Water (log Po/w):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity, dynamic (mPa.s):	9,234 cSt (100°C)
Explosive properties:	Not available

Oxidising properties:	Not available
Molecular Formula:	Not available
Molecular Weight:	Not available

Other information:

Fat solubility(solvent– oil to be specified) etc:	Not available
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available
Specific gravity:	Not available

Section 10 Stability and reactivity

Reactivity:	The substance is stable under normal storage and handling conditions.
Chemical stability:	Stable at room temperature in closed containers under normal storage and handling conditions.
Possibility of hazardous reactions:	No dangerous reactions known.
Conditions to avoid:	Incompatible materials. Heating, open flame, ignition sources.
Incompatible materials:	Avoid contact with strong oxidizing agents. Avoid contact with strong acids.
Hazardous decomposition products:	In case of fire the following can develop: Oxides of carbon, Toxic gases.

Section 11 Toxicological information

Toxicokinetics, metabolism and distribution:

Non-human toxikological data:	Not available

Information on toxicological effects:

Acute toxicity:

Tris(methylphenyl)phosphate(CAS#1330-78-5)

LD50(Oral, Rat):	>3700mg/kg
LD50(Dermal, Rabbit):	Not available
LC50(Inhalation, Rat):	Not available

2,6-Di-t-butyl-4-methyl-phenol(CAS#128-37-0)

LD50(Oral, Rat):	>5000mg/kg
LD50(Dermal, Rabbit):	>5000mg/kg
LC50(Inhalation, Rat):	Not available

Tris(nonylphenyl) phosphite (CAS#26523-78-4)

LD50(Oral, Rat):	19500mg/kg
LD50(Dermal, Rabbit):	> 2000mg/kg
LC50(Inhalation, Rat):	Not available

Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified

STOT- single exposure: Not classified

STOT-repeated exposure: Not classified

Section 12 Ecological information

Toxicity:

Tris(methylphenyl)phosphate(CAS#1330-78-5)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	0,6mg/l	96h	Fish	OECD 203	N/A	N/A
EC50	0,14mg/l	48h	Daphnia	OECD 202	N/A	N/A
EC50	0,4mg/l	72h	Algae	OECD 201	N/A	N/A

2,6-Di-t-butyl-4-methyl-phenol(CAS#128-37-0)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	>=0,57mg/l	96h	Fish	OECD 203	N/A	N/A
EC50	0,61 mg/l	48h	Daphnia	OECD 202	N/A	N/A
EC50	>0,42 mg/l	72h	Algae	OECD 201	N/A	N/A

Tris(nonylphenyl) phosphite (CAS#26523-78-4)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	0,46mg/l	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: Tris(methylphenyl)phosphate(CAS#1330-78-5):80%
2,6-Di-t-butyl-4-methyl-phenol(CAS#128-37-0): 4,5% 28d

Bioaccumulative potential: Tris(methylphenyl)phosphate(CAS#1330-78-5): BCF= 144
2,6-Di-t-butyl-4-methyl-phenol(CAS#128-37-0): Log Pow: 5,1

Mobility in soil: The production is insoluble in water.

Results of PBT&vPvB assessment: The mixture does not contain any PBT&vPvB substance.

Other adverse effects: Not available.

Section 13 Disposal considerations

Waste treatment methods: The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.

Product / Packaging disposal: If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

Section 14 Transport information

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated
Transport hazard Class	Not regulated	Not regulated	Not regulated
Packaging group	Not regulated	Not regulated	Not regulated

Environmental hazards	No	No	No
Special precautions for user	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated	Not regulated	Not regulated

Section 15 Regulation information

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

Tricresyl phosphate(1330-78-5) is found on the following regulatory lists	"Not Applicable"
2,6-di-tert-butyl-4-methylphenol(128-37-0) is found on the following regulatory lists	"Singapore Permissible Exposure Limits of Toxic Substances"
Tris(monononylphenyl)phosphite(26523-78-4) is found on the following regulatory lists	"Not Applicable"

Section 16 Other information

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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