SAFETY DATA SHEET

Denso ND 11



Section 1. Identification

Product identifier : Denso ND 11

Product code : Not available.

Other means of : Not available.

identification

Product type : Liquid.

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

Product use : Lubricants

Area of application : Professional applications.

Supplier/Manufacturer : Dometic Germany GmbH

Hollefeldstr. 63 48282 Emsdetten Tel.: +49 (0) 2572 879 0

E-Mail: info@dometic-waeco.de Homepage: www.waeco.com

e-mail address of person responsible for this SDS

cy telephone : +49 (0) 700 / 24 112 112 (CCWA)

Emergency telephone number (with hours of

operation)

+1 872 5888271 (CCWA)

Section 2. Hazard(s) identification

Classification of the substance or mixture

: H317 SKIN SENSITISATION - Category 1
H341 GERM CELL MUTAGENICITY - Category 2
H360 REPRODUCTIVE TOXICITY - Category 1

: info@chemical-check.de; k.schnurbusch@chemical-check.de

H371 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -

Category 2

GHS label elements

Hazard pictograms :





Signal word : DANGER

Hazard statements : H317 - May cause an allergic skin reaction.

H341 - Suspected of causing genetic defects. H360 - May damage fertility or the unborn child.

H371 - May cause damage to organs.

Precautionary statements

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Section 2. Hazard(s) identification

Prevention: P201 - Obtain special instructions before use.

P280 - Wear protective gloves: 4 - 8 hours (breakthrough time): Recommended: butyl rubber (≥ 0.7 mm). Protective hand cream.. Wear protective clothing:

Recommended: Long-sleeved protective clothing. Safety shoes.. Wear eye or face

protection. Wear hearing protection. P260 - Do not breathe vapour.

P270 - Do not eat, drink or smoke when using this product.

Response : P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

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

P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Supplemental label

elements

: Not applicable.

Other hazards which do not : None known.

result in classification

Section 3. Composition and ingredient information

Substance/mixture : Mixture

Other means of : Not available. identification

Ingredient name	% (w/w)	CAS number
tris(methylphenyl) phosphate	≤3	1330-78-5
2.3-epoxypropyl neodecanoate	≤3	26761-45-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

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: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician.

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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Eye contact

Inhalation

Section 4. First aid measures

Skin contact

: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : May cause damage to organs following a single exposure if inhaled.

Skin contact : May cause damage to organs following a single exposure in contact with skin. May

cause an allergic skin reaction.

Ingestion : May cause damage to organs following a single exposure if swallowed.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation redness

reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician

: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments

: No specific treatment.

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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Section 4. First aid measures

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media

: In case of fire, use water spray (fog), foam, dry chemical or CO2.

Unsuitable extinguishing media

: Do not use water jet.

Specific hazards arising from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

 Decomposition products may include the following materials: carbon dioxide carbon monoxide phosphorus oxides

Toxic gases

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure

Remark : Not

: Not considered to be a product presenting a risk of explosion.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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Section 6. Accidental release measures

Large spill

: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, : including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits	
tris(methylphenyl) phosphate	DFG MAC-values list (Germany, 10/2021). [tricresyl phosphate] TWA: 5 mg/m³ 8 hours. Form: inhalable fraction PEAK: 10 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction	

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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Section 8. Exposure controls and personal protection

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. 4 - 8 hours (breakthrough time): Recommended: butyl rubber (≥ 0.7 mm). Protective hand cream.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Long-sleeved protective clothing. Safety shoes.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Gas mask (as filter A)

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Colour : Yellow. [Light]

Odour : Slight

Odour threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

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Section 9. Physical and chemical properties and safety characteristics

Boiling point, initial boiling point, and boiling range

: Not available.

Flash point : Open cup: 200°C (392°F) [Cleveland]

Evaporation rate : Not available.
Flammability : Flammable
Lower and upper explosion : Not available.

limit/flammability limit

Vapour pressure: Not available.Relative vapour density: Not available.

Relative density : 0.98

Solubility(ies) : Media Result

cold water Not soluble hot water Not soluble

Miscible with water : No.

Partition coefficient: n-

: Not applicable.

octanol/water

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Not available.

Flow time (ISO 2431) : Not available.

Particle characteristics

Median particle size : Not applicable.

Other information

Pour point : -35°C (-31°F)

Physical/chemical : Not considered to be a product presenting a risk of explosion. properties comments

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not

occur.

Conditions to avoid : No specific data.

Incompatible materials: Reactive or incompatible with the following materials: oxidising materials.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
tris(methylphenyl) phosphate	LD50 Dermal	Rabbit	>10000 mg/kg	-
	LD50 Oral	Rat	3 g/kg	-
2,3-epoxypropyl	LD50 Oral	Rat - Male,	>2000 mg/kg	-
neodecanoate		Female		

Conclusion/Summary

: Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
tris(methylphenyl) phosphate	Skin - Mild irritant	Rabbit	-	500 mg	-

Conclusion/Summary

Skin : Not available. : Not available. **Eyes** Respiratory : Not available.

Sensitisation

3	Route of exposure	Species	Result
tris(methylphenyl) phosphate	Respiratory	Guinea pig	Not sensitizing

Conclusion/Summary

Skin : Not available. Respiratory : Not available.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
tris(methylphenyl) phosphate	-	Subject: Bacteria	Negative

Conclusion/Summary

: Not available.

Carcinogenicity

: Not available. **Conclusion/Summary**

Reproductive toxicity

: Not available. **Conclusion/Summary**

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	3.3	Route of exposure	Target organs
tris(methylphenyl) phosphate	Category 1	-	-

Specific target organ toxicity (repeated exposure)

Name	3.3	Route of exposure	Target organs
tris(methylphenyl) phosphate	Category 2	-	-

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Section 11. Toxicological information

Aspiration hazard

Not available.

Information on likely routes

of exposure

: Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact: No known significant effects or critical hazards.

Inhalation : May cause damage to organs following a single exposure if inhaled.

Skin contact: May cause damage to organs following a single exposure in contact with skin. May

cause an allergic skin reaction.

Ingestion : May cause damage to organs following a single exposure if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

irritation redness

reduced foetal weight increase in foetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

reduced foetal weight increase in foetal deaths skeletal malformations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate

effects

: Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity : Suspected of causing genetic defects.Reproductive toxicity : May damage fertility or the unborn child.

Numerical measures of toxicity

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Section 11. Toxicological information

Acute toxicity estimates

	Oral (mg/ kg)		Inhalation (gases) (ppm)	(- 1 7	Inhalation (dusts and mists) (mg/l)
tris(methylphenyl) phosphate	3000	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
tris(methylphenyl) phosphate	EC50 0.4 mg/l EC50 0.14 mg/l	Algae Daphnia	72 hours 48 hours
	Acute EC50 290 μg/l Fresh water	Algae - Stephanodiscus hantzschii - Exponential growth phase	96 hours
	Acute EC50 170 μg/l Fresh water	Fish - Gasterosteus aculeatus	96 hours
2,3-epoxypropyl neodecanoate	Acute EC50 1.2 mg/l Fresh water	Algae	72 hours
	Acute EC50 4.8 mg/l Fresh water Acute LC50 5 mg/l Fresh water	Daphnia Fish	48 hours 96 hours

Conclusion/Summary

: Not available.

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
tris(methylphenyl) phosphate 2,3-epoxypropyl neodecanoate	- OECD 301D Ready Biodegradability - Closed Bottle Test	80 % - Readily - 28 days 7 to 8 % - Not readily - 28 days	3 mg/l	-

Conclusion/Summary

: Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
tris(methylphenyl) phosphate 2,3-epoxypropyl neodecanoate	-		Readily Not readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
tris(methylphenyl) phosphate 2,3-epoxypropyl neodecanoate	5.93 4.4	794.33	high high

Mobility in soil

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Section 12. Ecological information

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to IMO instruments

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Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

Australia inventory (AIIC) : Not determined.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Any other relevant information

History

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Version

:

Prepared by

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Key to abbreviations

: ADG = Australian Dangerous Goods ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SUSMP = Standard Uniform Schedule of Medicine and Poisons

UN = United Nations

Procedure used to derive the classification

Classification	Justification
SKIN SENSITISATION - Category 1	Calculation method
GERM CELL MUTAGENICITY - Category 2	Calculation method
REPRODUCTIVE TOXICITY - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2	Calculation method

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Section 16. Any other relevant information

References

: Work Health and Safety Regulations 2011, as ammended

Preparation of Safety Data Sheets for Hazardous Chemicals, Code of Practice, Safe

Work Australia

Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG),

National Transport Commission

Indicates information that has changed from previously issued version.

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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