

SAFETY DATA SHEET

Denso ND11

WAECO
AirCon Service

Section 1. Identification

Product identifier : Denso ND11
Product code : Not available.
Other means of identification : Not available.
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 : WAECO Germany WSE GmbH
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48282 Emsdetten
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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
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.
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
- 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 result in classification : None known.

Section 3. Composition and ingredient information

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	% (w/w)	Identifiers
tris(methylphenyl) phosphate	≤ 3	CAS: 1330-78-5
2,3-epoxypropyl neodecanoate	≤ 3	CAS: 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

- Eye contact** : 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.
- Inhalation** : 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.

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.

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 mode.

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. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. 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.

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, 7/2024) [tricresyl phosphate] Develop C. TWA 8 hours: 5 mg/m ³ . Form: inhalable fraction. PEAK 15 minutes: 10 mg/m ³ 4 times per shift [Interval: 1 hour]. Form: inhalable fraction.

Biological exposure indices

None known.

Section 8. Exposure controls and personal protection

- 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.
- 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
Not available.

Section 9. Physical and chemical properties and safety characteristics

Odour threshold	:					
pH	:	Not available.				
Melting point/freezing point	:	Not available.				
Boiling point or initial boiling point and boiling range	:	Not available.				
Flash point	:	Open cup: >200°C (>392°F) [Cleveland]				
Flammability	:	Flammable				
Lower and upper explosion limit/flammability limit	:	Not available.				
Vapour pressure	:	Not applicable.				
Relative vapour density	:	Not available.				
Relative density	:	0.98				
Solubility(ies)	:	<table><tr><th>Media</th><th>Result</th></tr><tr><td>water</td><td>Not soluble</td></tr></table>	Media	Result	water	Not soluble
Media	Result					
water	Not soluble					
Miscible with water	:	No.				
Partition coefficient: n-octanol/water	:	Not applicable.				
Auto-ignition temperature	:	Not available.				
Decomposition temperature	:	Not available.				
Viscosity	:	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): >20.5 mm²/s (>20.5 cSt)				
<u>Particle characteristics</u>						
Median particle size	:	Not applicable.				
<u>Other information</u>						
Pour point	:	-35°C (-31°F)				
Physical/chemical properties comments	:	Not considered to be a product presenting a risk of				

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.

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

Result

tris(methylphenyl) phosphate

Rat - Oral - LD50

3 g/kg

Rabbit - Dermal - LD50

>10000 mg/kg

2,3-epoxypropyl neodecanoate

Rat - Male, Female - Oral - LD50

>2000 mg/kg

Rat - Male, Female - Dermal - LD50

>2000 mg/kg

OECD [Acute Oral Toxicity - Fixed Dose Method]

OECD [Acute Dermal Toxicity]

Conclusion/Summary[Product]

: Not available.

Skin corrosion/irritation

Product/ingredient name

Result

tris(methylphenyl) phosphate

Rabbit - Skin - Mild irritant

Amount/concentration applied: 500 mg

Conclusion/Summary[Product]

: Not available.

Serious eye damage/eye irritation

Conclusion/Summary[Product]

: Not available.

Respiratory corrosion/irritation

Conclusion/Summary[Product]

: Not available.

Respiratory or skin sensitization

Product/ingredient name

Result

tris(methylphenyl) phosphate

Guinea pig - Respiratory

Result: Not sensitizing

Skin

Conclusion/Summary[Product]

: Not available.

Ingredient name

Conclusion/Summary

tris(methylphenyl) phosphate

Not sensitizing

Respiratory

Section 11. Toxicological information

Conclusion/Summary[Product] : Not available.

Germ cell mutagenicity

Product/ingredient name

tris(methylphenyl) phosphate

Result

Bacteria

Result: Negative

Conclusion/Summary[Product] : Not available.

Carcinogenicity

Conclusion/Summary[Product] : Not available.

Reproductive toxicity

Conclusion/Summary[Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

tris(methylphenyl) phosphate

Result

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE
- Category 1

Specific target organ toxicity (repeated exposure)

Product/ingredient name

tris(methylphenyl) phosphate

Result

SPECIFIC TARGET ORGAN TOXICITY - REPEATED
EXPOSURE - Category 2

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.

Section 11. Toxicological information

- 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 effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

- Conclusion/Summary[Product]** : Not available.

- 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

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	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	
tris(methylphenyl) phosphate	Acute - EC50 - Fresh water Fish - Threespine stickleback - <i>Gasterosteus aculeatus</i> Age: 4 to 5 weeks 170 µg/l [96 hours]	<u>Effect</u> : Multiple
	Acute - EC50 - Fresh water Algae - Diatom - <i>Stephanodiscus hantzschii</i> - Exponential growth phase 290 µg/l [96 hours]	<u>Effect</u> : Growth
	EC50 Daphnia 0.14 mg/l [48 hours]	
2,3-epoxypropyl neodecanoate	Acute - LC50 - Fresh water Fish 5 mg/l [96 hours]	OECD [Fish, Acute Toxicity Test]
	Acute - EC50 - Fresh water Daphnia 4.8 mg/l [48 hours]	OECD [Daphnia sp. Acute Immobilization Test and Reproduction Test]
	Acute - EC50 - Fresh water Algae 1.2 mg/l [72 hours]	OECD [Alga, Growth Inhibition Test]

Conclusion/Summary[Product] : Not available.

Persistence and degradability

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

Conclusion/Summary[Product] : Not available.

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
tris(methylphenyl) phosphate	5.93	794.33	High
2,3-epoxypropyl neodecanoate	4.4	-	High

Mobility in soil

Soil/water partition coefficient : Not available.

Section 12. Ecological information

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 to IMO instruments : Not available.

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 (AIC) : Not determined.

Section 15. Regulatory information

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

Date of issue/Date of revision : 06/11/2025

Date of previous issue : 09/03/2023

Version : 2

Chemical Check GmbH

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
 RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
 SGG = Segregation Group
 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

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

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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.