



Safety Data Sheet

Section 1: Identification

Product identifier

- Product Name** • **ND-11 A/C Compressor Oil POE Type**
- Synonyms** • 68043289AA; 68043289AB

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

- Recommended use** • Lubricant
- Restrictions on use** • No data available

Details of the supplier of the safety data sheet

- Manufacturer** • Mopar (FCA US LLC Service & Customer Care Division)
 26311 Lawrence Ave.
 Center Line, MI 48015
 United States

MoparSDS@fcagroup.com

- Telephone (General)** • 1-800-84-Mopar

Emergency telephone number

- Manufacturer** • 248-512-8002

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

- OSHA HCS 2012**
- Skin sensitization: Category 1
 - Germ cell mutagenicity: Category 2
 - Reproductive toxicity: Category 2

Label elements

OSHA HCS 2012

WARNING



- Hazard statements**
- H317 - May cause an allergic skin reaction.
 - H341 Suspected of causing genetic defects
 - H361 Suspected of damaging fertility or the unborn child

Precautionary statements

- Prevention**
- P201 - Obtain special instructions before use
 - P202 - Do not handle until all safety precautions have been read and understood.
 - P261 Avoid breathing mist or vapours.
 - P272: Contaminated work clothing should not be allowed out of the workplace
 - P280 - Wear protective gloves/protective clothing/eye protection/face protection.

- Response**
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water
 - P308 + P313 - IF exposed or concerned: Get medical attention/advice.
 - P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 - P363 Wash contaminated clothing before reuse.

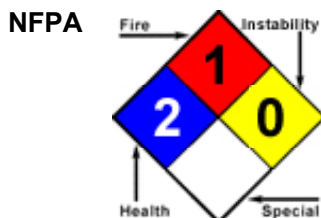
- Storage/Disposal**
- P102 Keep out of reach of children.
 - P405 Store locked up.
 - P501: Dispose of contents/ container to an approved waste disposal plant.

Other hazards

OSHA HCS 2012

- None known.

Other information



HMIS • Health = 2* Flammability = 1 Physical Hazard = 0

Key to abbreviations

= HMIS (Hazardous Material Information System) rating: 0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic.

= NFPA Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe. HMIS Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; *Chronic health effect.

Section 3 - Composition/Information on Ingredients

Substances

Mixtures

Composition				
Chemical Name	Identifiers	%	Classifications According to Regulation/Directive	Comments
Tris(methylphenyl) phosphate	CAS:1330-78-5 EINECS:215-548-8	1% TO 5%	OSHA HCS 2012:	NDA
2,3-Epoxypropyl neodecanoate	CAS:26761-45-5 EINECS:247-979-2	1% TO 5%	OSHA HCS 2012:	NDA

Section 4: First-Aid Measures

Description of first aid measures

- Inhalation** ● Remove to fresh air. Get medical attention.
- Skin** ● Immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
- Eye** ● Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
- Ingestion** ● If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed

- May cause allergic skin reaction. Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician** ● Treat symptomatically and supportively.

Other information

- General advice: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice. Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Section 5: Fire-Fighting Measures

Extinguishing media

- Suitable Extinguishing Media** ● Water spray, alcohol-resistant foam, dry chemical, & carbon dioxide (CO₂).

- Unsuitable Extinguishing Media** ● None known.

- Firefighting Procedures** ● Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards** ● Exposure to combustion products may be a hazard to health.

- Hazardous Combustion Products** ● Carbon oxides and oxides of phosphorus.

Advice for firefighters

- No data available

Other information

- Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Personal Precautions** ● Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

- Emergency Procedures** ● No data available.

Environmental precautions

- Discharge into the environment must be avoided. Prevent further leakage or spillage if

safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Soak up with inert absorbent material. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Do not get on skin or clothing. Avoid inhalation of vapor or mist. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage, including any incompatibilities

Storage

- Keep in properly labeled containers. Store locked up. Store in accordance with the particular national regulations.

Incompatible Materials or Ignition Sources

- Do not store with the following product types: Strong oxidizing agents.

Other Information

- Local/Total ventilation: Use only with adequate ventilation. Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines

- Contains no substances with occupational exposure limit values. Hazardous components without workplace control parameters: Tris(methylphenyl) phosphate 1330-78-5 and 2,3-Epoxypropyl neodecanoate 26761-45-5.

Exposure controls

Engineering Measures/Controls

- Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations.

Personal Protective Equipment

Respiratory

- General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Eye/Face

- Wear the following personal protective equipment: Safety glasses.

Hands

- Material: butyl-rubber
Remarks: Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Skin/Body

- Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Skin contact must be avoided by using

impervious protective clothing (gloves, aprons, boots, etc).

General Industrial Hygiene Considerations

- Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

Environmental Exposure Controls

- No data available

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Liquid
Color	light yellow.	Odor	slight
Taste	No data available	Particulate Type	No data available
Particulate Size	No data available	Aerosol Type	No data available
Odor Threshold	No data available	Physical and Chemical Properties	No data available
General Properties			
Boiling Point	No data available	Melting Point	No data available
Decomposition Temperature	No data available	Heat of Decomposition	No data available
pH	No data available	Specific Gravity/Relative Density	= 0.98 @ 15 C(59 F) Water=1
Density	No data available	Bulk Density	No data available
Water Solubility	Insoluble	Solvent Solubility	No data available
Viscosity	No data available	Explosive Properties	Not explosive.
Oxidizing Properties:	The substance or mixture is not classified as oxidizing.		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available	VOC (Wt.)	No data available
VOC (Vol.)	No data available	Volatiles (Wt.)	No data available
Volatiles (Vol.)	No data available		
Flammability			
Flash Point	200 C(392 F) COC (Cleveland Open Cup)	UEL	No data available
LEL	No data available	Autoignition	No data available
Self-Accelerating Decomposition Temperature (SADT)	No data available	Heat of Combustion (ΔH_c)	No data available
Burning Time	No data available	Flame Height	No data available
Flame Extension	No data available	Ignition Distance	No data available
Flame Duration	No data available	Flammability (solid, gas)	Not applicable.
Environmental			
Half-Life	No data available	Octanol/Water Partition coefficient	Not applicable.
Coefficient of water/oil distribution	No data available	Bioaccumulation Factor	No data available
Bioconcentration Factor	No data available	Biochemical Oxygen Demand BOD/BOD5	No data available
Chemical Oxygen Demand	No data available	Persistence	No data available
Degradation	No data available		

Other Information

- Pour point: -35 °C

Section 10: Stability and Reactivity

Reactivity

- Not classified as a reactivity hazard.

Chemical stability

- Stable under normal conditions.

Possibility of hazardous reactions

- Can react with strong oxidizing agents.

Conditions to avoid

- None known.

Incompatible materials

- Oxidizing agents.

Hazardous decomposition products

- No hazardous decomposition products are known.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
Tris(methylphenyl) phosphate (1% TO 5%)	1330-78-5	<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • >20000 mg/kg; Inhalation-Rat LC50 • >11.1 mg/L 1 Hour(s) • Comments: Assessment: The substance or mixture has no acute inhalation toxicity; Skin-Rabbit LD50 • 3700 mg/kg;</p> <p>Irritation: Eye-Rabbit • Comments: Result: No eye irritation; Skin-Rabbit • Comments: Result: No skin irritation;</p> <p>Multi-dose Toxicity: Ingestion/Oral-Rat • 3 Minute(s) • Comments: NOAEL = 1000 mg/kg</p>
2,3-Epoxypropyl neodecanoate (1% TO 5%)	26761-45-5	<p>Acute Toxicity: Ingestion/Oral-Rat LD50 • >2000 mg/kg • Comments: Method: OECD Test Guideline 420. Assessment: The substance or mixture has no acute oral toxicity; Skin-Rat LD50 • >2000 mg/kg • Comments: Method: OECD Test Guideline 402. Assessment: The substance or mixture has no acute dermal toxicity;</p> <p>Irritation: Eye-Rabbit • Comments: Method: OECD Test Guideline 405. No eye irritation; Skin-Rabbit • Comments: Method: OECD Test Guideline 404 Result: No skin irritation;</p> <p>Multi-dose Toxicity: Ingestion/Oral-Rat • 5 Week(s) • Comments: NOAEL: 5000 ppm</p>

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012 • Data lacking
Aspiration Hazard	OSHA HCS 2012 • Data lacking
Carcinogenicity	OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	OSHA HCS 2012 • Data lacking
Skin corrosion/Irritation	OSHA HCS 2012 • Data lacking
Skin sensitization	OSHA HCS 2012 • Data lacking
STOT-RE	OSHA HCS 2012 • Data lacking
STOT-SE	OSHA HCS 2012 • Data lacking
Toxicity for Reproduction	OSHA HCS 2012 • Data lacking
Respiratory sensitization	OSHA HCS 2012 • Data lacking

Serious eye damage/Irritation**Route(s) of entry/exposure**

- Eye contact; skin contact; inhalation; ingestion.

Potential Health Effects**Inhalation****Acute (Immediate)**

- Not classified based on available information.

Chronic (Delayed)

- No data available

Skin**Acute (Immediate)**

- Acute toxicity estimate: > 5,000 mg/kg, Method: Calculation method.

Chronic (Delayed)

- No data available

Eye**Acute (Immediate)**

- Not classified based on available information.

Chronic (Delayed)

- No data available

Ingestion**Acute (Immediate)**

- No data available.

Chronic (Delayed)

- No data available

Other**Acute (Immediate)**

- STOT-single exposure: Not classified based on available information.

Chronic (Delayed)

- STOT-repeated exposure: Not classified based on available information.

Mutagenic Effects

- Germ cell mutagenicity: Suspected of causing genetic defects. A) Genotoxicity in vitro. I) Tris(methylphenyl) phosphate: 1) Test Type: Chromosome aberration test in vitro Metabolic activation: with and without metabolic activation Result: negative 2) Test Type: Bacterial reverse mutation assay (AMES). Metabolic activation: with and without metabolic activation Result: negative. 3) Test Type: In vitro sister chromatid exchange assay in mam-malian cells Metabolic activation: with and without metabolic activation Result: negative. II) 2,3-Epoxypropyl neodecanoate: 1) Test Type: Bacterial reverse mutation assay (AMES); Method: OECD Test Guideline 471. Result: Positive. B) Genotoxicity in vivo 1) Test Type: Transgenic rodent somatic cell gene mutation assay; Test species: Mouse; Application Route: Ingestion; Method: OECD Test Guideline 488. Result: positive. Germ cell mutagenicity- Assessment : Positive result (s) from in vivo mammalian somatic cell mutagenicity tests.

Carcinogenic Effects

- Not classified based on available information. IARC : No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. OSHA: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive Effects

- Suspected of damaging fertility or the unborn child. A) Effects on fertility. I) Tris (methylphenyl) phosphate: 1) Test Type: One-generation reproduction toxicity study Species: Rat Application Route: Ingestion; Result: positive. B) Effects on fetal development. I) Tris(methylphenyl) phosphate: 1) Test Type: Embryo-fetal development Species: Rat Application Route: Ingestion Method: OPPTS 870.3700; Result: positive. Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

Other information

- Skin sensitization: May cause an allergic skin reaction. Respiratory sensitization: Not classified based on available information. Ingredients: Tris(methylphenyl) phosphate: Test Type: Local lymph node assay (LLNA) Routes of exposure: Skin contact Species: Mouse Method: OECD Test Guideline 429 Result: Equivocal Assessment: Does not cause skin sensitization. 2,3-Epoxypropyl neodecanoate: Test Type: Maximization Test (GPMT) Routes of exposure: Skin contact Species: Guinea pig Method: OECD Test Guideline 406 Result: positive Assessment: Probability or evidence of skin sensitization in humans. Aspiration toxicity: Not classified based on available information.

Section 12 - Ecological Information

Toxicity

ND-11 A/C Compressor Oil POE Type					
Dosage	Species	Duration	Results	Exposure Conditions	Comments
0.6 mg/L	Fish: Oncorhynchus mykiss (rainbow trout)	96 Hour (s)	LC50	NDA	Tris(methylphenyl) phosphate
0.146 mg/L	Water Flea: Daphnia magna	48 Hour (s)	EC50	NDA	Tris(methylphenyl) phosphate
>2.5 mg/L	Algae: Selenastrum capricornutum (green algae)	72 Hour (s)	NDA	NDA	EL50; Tris(methylphenyl) phosphate
>2.5 mg/L	Algae: Selenastrum capricornutum (green algae)	72 Hour (s)	NOEC	NDA	Tris(methylphenyl) phosphate:
0.01 mg/L	Fish: Jordanella floridae	28 Day(s)	NOEC	NDA	Chronic toxicity - Tris(methylphenyl) phosphate
0.1 mg/L	Water Flea: Daphnia magna	21 Day(s)	NOEC	NDA	Chronic toxicity - Tris(methylphenyl) phosphate
>1000 mg/L	Other: Bacteria	3 Hour(s)	EC50	NDA	Tris(methylphenyl) phosphate (1330-78-5)
5 mg/L	Fish: Oncorhynchus mykiss (rainbow trout)	96 Hour (s)	LC50	NDA	2,3-Epoxypropyl neodecanoate Method: OECD Test Guideline 203
4.8 mg/L	Water Flea: Daphnia magna	48 Hour (s)	EC50	NDA	2,3-Epoxypropyl neodecanoate; Method: OECD Test Guideline 202
2.9 mg/L	Aquatic Plant(s): Pseudokirchneriella subcapitata (green algae)	72 Hour (s)	ErC50	NDA	Method: OECD Test Guideline 201; 2,3-Epoxypropyl neodecanoate
500 mg/L	Other: Bacteria	3 Hour(s)	NOEC	NDA	2,3-Epoxypropyl neodecanoate(26761-45-5), Method: OECD Test Guideline 209

Persistence and degradability

- Tris(methylphenyl) phosphate: Biodegradability : Result: Not readily biodegradable. Biodegradation: 24.2 % Exposure time: 28 d. 2,3-Epoxypropyl neodecanoate: Biodegradability : Result: Not readily biodegradable. Biodegradation: 7 % Exposure time: 28 d Method: OECD Test Guideline 301D

Bioaccumulative potential

- Tris(methylphenyl) phosphate: Partition coefficient: noctanol/water : log Pow: 5.93 2,3-Epoxypropyl neodecanoate: Partition coefficient: noctanol/water.

Mobility in Soil

- No data available.

Other adverse effects

- No data available.

Other Information

- Ecotoxicity - Tris(methylphenyl) phosphate: M-Factor (Acute aquatic tox-icity) = 1 M-Factor (Chronic aquatic toxicity) = 10.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of in accordance with local regulations.

Packaging waste

- Contaminated packaging : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN 3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	9	III	NDA
TDG	UN 3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tris(methylphenyl) phosphate)	9.1	III	NDA
IMO/IMDG	UN 3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tris(methylphenyl) phosphate)	9	III	Marine Pollutant
ADN	NDA	NDA	NDA	NDA	NDA
ADR/RID	NDA	NDA	NDA	NDA	NDA
IATA/ICAO	UN 3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tris(methylphenyl) phosphate)	9	III	NDA

Special precautions for user

- No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not applicable for product as supplied.

Other information

- Domestic regulation - 49 CFR UN/ID/NA number: UN 3082 Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tris (methylphenyl) phosphate) Class: 9; Packing group: III; Labels: CLASS 9. ERG Code: 171; Marine pollutant: yes (Tris(methylphenyl) phosphate) Remarks: Above applies only to containers over 119 gallons or 450 liters.

TDG ● Transport Hazard Class: 9 Labels: 9.

IMO/IMDG ● Labels: 9. EmS Code: F-A, S-F

IATA/ICAO ● Labels: Miscellaneous. Packing instruction (cargo aircraft): 964 Packing instruction (passenger aircraft): 964.

Section 15 - Regulatory Information

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

SARA Hazard Classifications

- SARA 304 Extremely Hazardous Substances Reportable Quantity This material does not contain any components with a section 304 EHS RQ. SARA 311/312 Hazards : Acute Health Hazard Chronic Health Hazard SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

State Right To Know		
Component	CAS	NJ
2,3-Epoxypropyl neodecanoate	26761-45-5	No
Tris(methylphenyl) phosphate	1330-78-5	Yes

Inventory				
Component	CAS	Canada DSL	EU EINECS	TSCA
2,3-Epoxypropyl neodecanoate	26761-45-5	Yes	Yes	Yes
Tris(methylphenyl) phosphate	1330-78-5	Yes	Yes	Yes

Canada

Labor

Canada - WHMIS - Ingredient Disclosure List

• Tris(methylphenyl) phosphate	1330-78-5	1 %
• 2,3-Epoxypropyl neodecanoate	26761-45-5	Not Listed

Other Information

- CERCLA Reportable Quantity: This material does not contain any components with a CERCLA RQ. US State Regulations Pennsylvania Right To Know Fatty acids, C5-10, esters with pentaerythritol 68424-31-7 70 - 90 % Fatty acids, C5-10, esters with dipentaerythritol 70983-72-1 20 - 30 % New Jersey Right To Know Fatty acids, C5-10, esters with pentaerythritol 68424-31-7 70 - 90 % Fatty acids, C5-10, esters with dipentaerythritol 70983-72-1 20 - 30 % 2,3-Epoxypropyl neodecanoate 26761-45-5 1 - 5 % Tris(methylphenyl) phosphate 1330-78-5 1 - 5 % California Prop 65 This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Section 16 - Other Information

Last Revision Date	• 31/March/2015
Preparation Date	• 31/March/2015
Disclaimer/Statement of Liability	• No data available