



John Deere Hydraul

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 12/15/2017 Version: 1.3

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : John Deere Hydraul
Product code : TY27366, TY27367, TY27368, TY27369

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

Use of the substance/mixture : VHVI Hydraulic Fluid

1.3. Details of the supplier of the safety data sheet

MANUFACTURER:

Northland Products
1000 Rainbow Drive
Waterloo, IA 50704

Tel: +1-319-234-5585
+1-800-772-1724

SUPPLIER:

Deere & Company
One John Deere Place
Moline, IL 61265
E-mail: ESOC@JohnDeere.com

1.4. Emergency telephone number

Emergency number : Chemtrec 1-800-424-9300
Chemtrec (Outside USA) +1 703-527-3887 (24 hours)
Supplier: +1-309-748-5636 or 1-800-822-8262 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

other hazards which do not result in classification : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects. Spills of this product present a serious slipping hazard. Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals. When using high-pressure equipment, injection of product can occur. Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%
Highly refined mineral oil	various	80 - 90
2,6-Di-tert-butylphenol	128-39-2	0.1 - <1
Zinc alkyl dithiophosphate	Confidential	0.1 - <1

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : This product contains a petroleum-based mineral oil. Prolonged or repeated skin contact can cause mild irritation and inflammation characterized by drying, cracking, (dermatitis) or oil acne. Repeated or prolonged inhalation of petroleum-based mineral oil mists at concentrations above applicable workplace exposure levels can cause respiratory irritation or other pulmonary effects.
- Symptoms/injuries after inhalation : Excess inhalation might cause risk of chemicals pneumonitis.
- Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.
- Symptoms/injuries after eye contact : Oil Mist. Contact may cause eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use media as appropriate for surrounding material. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : When heated above the flash point, releases vapours. Gas/vapours, flammable.

5.3. Advice for firefighters

- Precautionary measures fire : Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Gases/vapours, toxic.
- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained respiratory apparatus during longer or intensive exposition or spraying processing.
- Other information : Special danger of slipping by leaking/spilling product.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Special danger of slipping by leaking/spilling product. Stop leak if safe to do so. Relevant water authorities should be notified of any large spillage to water course or drain. Take any precaution to avoid mixing with combustibles ...

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel. Avoid breathing mist or vapor. Avoid direct eye contact with product, also via contamination on hands. Avoid contact with skin, eyes and clothes.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : The low volatility of this product does not require ventilation. However depending on the condition an adequate ventilation might be required.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as fabric absorbents, clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Special danger of slipping by leaking/spilling product.
- Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Avoid contact with skin, eyes and clothes. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid breathing dust/fume/gas/mist/vapours/spray. Empty container retains product residue. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Technical ventilation of workplace. Ensure the ventilation system is regularly maintained and tested. Emergency shower installed. A washing facility/water for eye and skin cleaning purposes should be present.
- Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place away from highly flammable substances.
- Incompatible materials : sawdust. Strong acid. Base. Oxidizing agents.
- Storage temperature : Store at ambient temperature
- Heat and ignition sources : Remove all sources of ignition.
- Storage area : Protect against direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
OIL MIST (MINERAL) (CAS N/A):	PEL	5 mg/m ³	Mist.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
OIL MIST (MINERAL) (CAS N/A):	TWA	5 mg/m ³	Inhalable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
OIL MIST (MINERAL) (CAS N/A)	STEL	10 mg/m ³	Mist.
	TWA	5 mg/m ³	Mist.

8.2. Exposure controls

- Appropriate engineering controls : A washing facility/water for eye and skin cleaning purposes should be present. Emergency shower installed. Mechanical ventilation should be used in low or enclosed places.
- Personal protective equipment : Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles.



- Hand protection : Wear protective gloves, rubber gloves.
- Eye protection : Wear chemical splash goggle. Chemical goggles or safety glasses.
- Skin and body protection : Chemical resistant suit. Wear rubber boots.
- Respiratory protection : Wear respiratory protection.
- Thermal hazard protection : Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).
- Environmental exposure controls : Do not allow run-off from fire-fighting to enter drains or water courses. Ensure waste is collected and contained. Notify authorities if product enters sewers or public waters.
- Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Clear to light amber.

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Odour	: Petroleum. Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 216 °C 420 °F
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: Negligible vapour pressure at ambient conditions
Relative vapour density at 20 °C	: > 10
Relative density	: 0.874 g/cm ³ at 15.6 °C (104 °F)
Solubility	: Water: < 0.1 % insoluble Organic solvent:completely soluble
Log Pow	: No data available
Log Kow	: > 4
Viscosity, kinematic	: 68 cSt at 40 °C (104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Hazardous polymerisation does not occur.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Strong acid. Strong bases. sawdust. Oxidizing agents, strong.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not an aspiration hazard
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: Excess inhalation might cause risk of chemicals pneumonitis.

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Symptoms/injuries after skin contact : Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact : Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Exposure may cause temporary irritation, redness, or discomfort.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May be toxic to aquatic life.

Mineral Oil, Highly Refined	
LC50 fishes 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

2,6-Di-tert-butylphenol (CAS 128-39-2)	
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

John Deere Hydraul	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

John Deere Hydraul	
Log Kow	> 4
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Overland transport

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. Additional information is given in the Safety Data Sheet.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4): Zinc alkyl dithiophosphate (CAS Confidential) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories

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Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance: Not listed.
SARA 311/312 Hazardous chemical: Yes
SARA 313 (TRI reporting): Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.

Safe Drinking Water Act (SDWA): Not regulated.

US state regulations: California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US. Massachusetts RTK - Substance List:

Mineral Oil, highly refined (CAS N/A)

US. New Jersey Worker and Community Right-to-Know Act:

Mineral Oil, highly refined (CAS N/A)

Zinc alkyl dithiophosphate (CAS Confidential)

US. Pennsylvania Worker and Community Right-to-Know Law

Zinc alkyl dithiophosphate (CAS Confidential)

US. Rhode Island RTK

Not regulated.

15.2. International regulations

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Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the NDSL (the Canadian Non-Domestic Substance List)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 16: Other information

Other information : 05/18/2017: Updated Section 3, ingredients table and Section 8,11,12 and 15.
12/15/2017: Updated Section 2, 11, and 16.

Full text of H-phrases: see section 16:

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SDS US (GHS HazCom 2012)

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