



John Deere Low Viscosity HyGard™

Safety Data Sheet

according to the third revision of the GHS

Date of issue: 07/20/2016

Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Trade name : John Deere Low Viscosity HyGard™
Product code : TY22035, TY22000, TY6342, TY6344
Product group : Trade product
Other means of identification : Universal Tractor Hydraulic Fluid

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Hydraulic fluids

1.2.2. Uses advised against

No additional information available

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:

John Deere Limited (Australia)
166-170 Magnesium Drive,
Crestmead, QLD, 4132 Australia
E-mail: ESOC@JohnDeere.com

1.4. Emergency telephone number

Emergency number : Supplier: AU 1800 822 8262 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to third revision of GHS

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to third revision of GHS

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.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Distillates, petroleum, solvent-refined heavy paraffinic	(CAS No) 64741-88-4 (EC no) 265-090-8 (EC index no) 649-454-00-7	0,1 - 5	Xn; R20 Xn; R65
Distillates, petroleum, solvent-refined light paraffinic	(CAS No) 64741-89-5 (EC no) 265-091-3 (EC index no) 649-455-00-2	0,1 - 5	Xn; R20
Distillates, petroleum, solvent-dewaxed heavy paraffinic	(CAS No) 64742-65-0 (EC no) 265-169-7 (EC index no) 649-474-00-6	0,4 - 1,5	Xn; R65
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	(CAS No) 68649-42-3 (EC no) 272-028-3	<3	N; R51/53 Xi; R41 Xi; R38

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Distillates, petroleum, solvent-refined heavy paraffinic	(CAS No) 64741-88-4 (EC no) 265-090-8 (EC index no) 649-454-00-7	0,1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Distillates, petroleum, solvent-refined light paraffinic	(CAS No) 64741-89-5 (EC no) 265-091-3 (EC index no) 649-455-00-2	0,1 - 5	Acute Tox. 4 (Inhalation:dust,mist), H332 Asp. Tox. 1, H304
Distillates, petroleum, solvent-dewaxed heavy paraffinic	(CAS No) 64742-65-0 (EC no) 265-169-7 (EC index no) 649-474-00-6	0,4 - 1,5	Asp. Tox. 1, H304
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	(CAS No) 68649-42-3 (EC no) 272-028-3	<3	Skin Irrit. 2, H315 Aquatic Chronic 2, H411

Full text of R- and H-phrases: see section 16

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). Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. If material is injected under the skin, seek medical attention immediately.
First-aid measures after inhalation	: Assure fresh air breathing. Allow the victim to rest. In case of breathing difficulties administer oxygen.
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. Wash with plenty of soap and water. Wash contaminated clothing before reuse. 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	: Rinse mouth. Do NOT induce vomiting. 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	: In the event of insufficient ventilation: 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. Typical symptoms are respiratory irritation, breathlessness, coughing, chest tightness and difficulty breathing.
Symptoms/injuries after skin contact	: Frequent or prolonged contact with skin may cause dermal irritation.
Symptoms/injuries after eye contact	: If user operations generate dust or fumes, . May cause eye irritation. Exposure to vapor may cause intense watering and irritation to eyes.

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

Injection under the skin of pressurized hydrocarbons can cause severe, permanent tissue damage. Immediate treatment at a surgical emergency center is recommended.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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5.2. Special hazards arising from the substance or mixture

Fire hazard : Leaks/ruptures in high pressure system can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

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 : Use personal protective equipment as required. 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. This material can burn but will not readily ignite. Eliminate all ignition sources if safe to do so.

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. An environmental fate analysis is not available for this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum products. Petroleum-based (mineral) lubricating oils normally will float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway may be sufficient to cause a fish kill or create an anaerobic environment. 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. Recover large spills by pumping (use an explosion proof or hand pump). Prevent from spreading by making a barrier with sand, earth or other containment material. Collect spillage. Store away from other materials. Consult the appropriate authorities about waste disposal. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Special danger of slipping by leaking/spilling product. Never use pressure to empty containers. Over pressure may rupture containers, cause serious injury, cause or accelerate fire.

Precautions for safe handling : Keep out of reach of children. Work in a well-ventilated area. 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. Do not use in high pressure systems in the vicinity of flames, sparks and hot surfaces. Provide good ventilation in process area to prevent formation of vapour. 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. Ground/bond container and receiving equipment. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

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 : A washing facility/water for eye and skin cleaning purposes should be present. Avoid static electricity discharges. Comply with applicable regulations. Ensure adequate ventilation. Ground/bond container and receiving equipment. Have equipments for fires and leaks readily available.

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. Keep container closed (and grounded).

Incompatible materials : Strong acid. Base. Oxidizing agents.

Storage temperature : Store at ambient temperature

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Heat and ignition sources	: Remove all sources of ignition. Store away from excessive heat . Light hydrocarbon vapours can build up in the headspace of containers.
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

8.2. Exposure controls

Appropriate engineering controls	: Use adequate general or local ventilation to keep airborne concentrations below the exposure limits.
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	: Use splash goggles when eye contact due to splashing is possible. Chemical goggles or safety glasses. with side-shields.
Skin and body protection	: Wear suitable protective clothing. Wear rubber boots.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Protection factors vary depending upon the type of respirator used. 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.
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	: > 320 °C (608 °F)
Flash point	: 180 °C (356 °F) Test method: COC
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Lower Flammability Limit (LFL) 0.9 Upper Flammability Limit (UFL) 7.0
Vapour pressure	: < 0,01 mm Hg Maximum @ 37.8 °C (100 °F)
Relative vapour density at 20 °C	: > 1
Relative density	: 0,870 g/cm³ at 15.6 °C / 60 °F
Solubility	: Water: insoluble Organic solvent:completely soluble
Log Pow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	: Base oil hydrocarbons: log Kow > 4 (estimate)
Viscosity, kinematic	: 34 cSt (40 °C/104 °F)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable at normal temperatures and pressures.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

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. Oxidizing agents.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. Unburned hydrocarbons, hydrogen sulfide and metal oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Possible Routes of Exposure : Inhalation, ingestion, skin, eyes

Acute toxicity : Not classified

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)

LD50 dermal rabbit	> 2000 mg/kg
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Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)

LD50 oral rat	> 5000 mg/kg
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LD50 dermal rabbit	> 2000 mg/kg
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LC50 inhalation rat (mg/l)	2,18 mg/l/4h
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ATE (dust,mist)	2,180 mg/l/4h
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Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)

LD50 oral rat	> 5000 mg/kg
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LD50 dermal rabbit	> 5 g/kg
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LC50 inhalation rat (mg/l)	2,18 mg/l/4h
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ATE (dust,mist)	2,180 mg/l/4h
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Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified May cause an allergic skin reaction
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified May be fatal if swallowed and enters airways
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May be toxic to aquatic life.

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
EC50 Daphnia 1	1 - 1,5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	10,0 - 35,0 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])

Distillates, petroleum, solvent-dewaxed heavy paraffinic (64742-65-0)	
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)

Distillates, petroleum, solvent-refined heavy paraffinic (64741-88-4)	
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)

Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)	
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)

12.2. Persistence and degradability

John Deere Low Viscosity HyGard™	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

John Deere Low Viscosity HyGard™	
Log Pow	Base oil hydrocarbons: log Kow > 4 (estimate)
Log Kow	Base oil hydrocarbons: log Kow > 4 (estimate)
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Do not re-use empty containers. Do not pressurize, cut, weld, braze solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Dispose in a safe manner in accordance with local/national regulations.

Additional information : Used oil, may contain harmful impurities. Used motor oil was associated with cancer in lifetime skin painting studies with laboratory animals.

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

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Proper Shipping Name : Petroleum Lubricating Oil

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

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14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

Other information, restriction and prohibition Regulations: Listed on the AICS (the Australian Inventory of Chemical Substances).
Listed on New Zealand -Inventory of Chemicals (NZIoC).

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out

SECTION 16: Other information

Sources of Key data : Australia – List of Designated Hazardous Substances – Classification; Australia – List of Designated Hazardous Substances – Labeling; Australia –Occupational Exposure Standards – TWAs; Australia –Occupational Exposure Standards – STELs; REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

Full text of R-, H- and EUH-phrases::

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Skin Irrit. 2	skin corrosion/irritation Category 2
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H332	Harmful if inhaled
H411	Toxic to aquatic life with long lasting effects
R20	Harmful by inhalation
R38	Irritating to skin
R41	Risk of serious damage to eyes
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65	Harmful: may cause lung damage if swallowed
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

SDS Australia

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