

SECTION 1 Identification**1.1. GHS Product identifier**

Product form : Mixture
Product name : Anti-Wear ISO 32 Hydraulic Oil
Part Number : 20401

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Lubricating oil
Recommended use : Hydraulic oil
Restrictions on use : No additional information available

1.4. Supplier's details

Lucas Oil Products, Inc.
3199 Harrison Way NW
Corydon, IN 47112
USA
T 800-342-2512
sds@lucasoil.com - www.LucasOil.com

1.5. Emergency phone number

Emergency number : For Chemical Emergency Call ChemTel 24hr/day 7days/week. Within USA, Canada, Puerto Rico & US Virgin Islands: 1-800-255-3924. International: 1-813-248-0585 (collect calls accepted). Australia: 1-300-954-583. Brazil: 0-800-591-6042. China: 400-120-0751. India: 000-800-100-4086. Mexico: 800-099-0731.

SECTION 2 Hazard identification**2.1. Classification of the substance or mixture****Classification (GHS CA)**

Reproductive toxicity, Category 2	H361	Suspected of damaging fertility or the unborn child.
Hazardous to the aquatic environment, Chronic Hazard, Category 4	H413	May cause long lasting harmful effects to aquatic life.

Full text of H-statements: see section 16

2.2. GHS label elements, including precautionary statements**GHS CA labelling**

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Warning

Hazard statements (GHS CA) : H361 - Suspected of damaging fertility or the unborn child
H413 - May cause long lasting harmful effects to aquatic life

Precautionary statements (GHS CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P273 - Avoid release to the environment.

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P280 - Wear protective gloves, protective clothing.
P308+P313 - IF exposed or concerned: get medical advice or attention.
P405 - Store locked up.
P501 - Dispose of contents and container to a hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Distillates (petroleum), hydrotreated heavy paraffinic	Distillates (petroleum), hydrotreated heavy paraffinic distillates (petroleum), hydrotreated heavy paraffinic	CAS-No.: 64742-54-7	30 - 60*	Asp. Tox. 1, H304 Aquatic Chronic 4, H413
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	CAS-No.: 68411-46-1	0.1 - 1*	Repr. 2, H361 Aquatic Chronic 3, H412

*Chemical name, CAS number and/or exact concentration have been withheld as CBI

*Contains fixed concentration

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : Wash skin with plenty of water and soap. Take off contaminated clothing. Get medical attention if symptoms occur. Wash skin with plenty of water.

First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. When in doubt or if symptoms are observed, get medical advice. Rinse eyes with water as a precaution.

First-aid measures after ingestion : Rinse mouth out with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical advice/attention. Call a poison center or a doctor if you feel unwell.

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First-aid measures general	: If medical advice is needed, have product container or label at hand. IF exposed or concerned: Get medical advice/attention.
Self protection of the first-aider	: First aid workers will be equipped with suitable personal protective equipment.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/effects after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
Symptoms/effects after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
Chronic symptoms	: Suspected of damaging fertility or the unborn child.

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

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

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

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard. In case of fire and/or explosion do not breathe fumes.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

5.3. Special protective actions for fire-fighters

Firefighting instructions	: Evacuate area. Eliminate all ignition sources if safe to do so. Exercise caution when fighting any chemical fire. Fight fire from safe distance and protected location. Use water spray or fog for cooling exposed containers. Prevent fire fighting water from entering the environment. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
Environmental precautions	: Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment	: Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	: Take up liquid spill into absorbent material. Move containers from fire area if it can be done without personal risk. Take up liquid spill into absorbent material. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Clean contaminated surfaces with an excess of water. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.
For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.	

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SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Avoid breathing vapours. Avoid contact with skin and eyes. Avoid contact during pregnancy/while nursing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store in a well-ventilated place. Keep cool. Keep only in original container. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Store locked up.
Incompatible materials	: Direct sunlight.
Packaging materials	: Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Handle in accordance with good industrial hygiene and safety procedures. Ensure exposure is below occupational exposure limits (where available). Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

If there is a risk of liquid being splashed : Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

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Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Colour	: Mixture contains one or more component(s) which have the following colour(s): Colourless Colourless to light yellow Yellow to brown Yellow Light yellow
Odour	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Ammonia odour Mild odour Odourless Irritating/pungent odour Asphyxiating odour Aromatic odour Pleasant odour
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 200 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: 0.85
Density	: 7.098 lb/gal
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: 35.2 mm ² /s @ 40 ° C
Explosive limits	: No data available
Particle characteristics	: No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: Oxidizing agent.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	: No additional information available

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SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

LD50 dermal rabbit > 5000 mg/kg Source: IUCLID

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

LD50 oral rat > 5000 mg/kg (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))

LD50 dermal rat > 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rat, Male / female, Experimental value, Skin)

Skin corrosion/irritation : Not classified

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

pH 5.1 – 6.2 (1 %, 20 - 25 °C)

Serious eye damage/irritation : Not classified

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

pH 5.1 – 6.2 (1 %, 20 - 25 °C)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

NOAEL (animal/male, F1) 54 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

LOAEL (oral, rat, 90 days) 125 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

NOAEC (inhalation, rat, dust/mist/fume, 90 days) > 0.98 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

NOAEL (oral, rat, 90 days) 25 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Aspiration hazard : Not classified.

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Viscosity, kinematic 35.2 mm²/s @ 40 ° C

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Viscosity, kinematic 18 mm²/s

Hydrocarbon Yes

Aliphatic, alicyclic or aromatic hydrocarbon Yes

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Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Viscosity, kinematic	353 mm ² /s (40 °C, OECD 114: Viscosity of Liquids)
Symptoms/effects after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/effects after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
Symptoms/effects after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Symptoms/effects after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
Chronic symptoms	: Suspected of damaging fertility or the unborn child.

SECTION 12 Ecological information

12.1. Toxicity

Ecology - general	: May cause long lasting harmful effects to aquatic life.
Hazardous to the aquatic environment, short-term (acute)	: Not classified.
Hazardous to the aquatic environment, long-term (chronic)	: May cause long lasting harmful effects to aquatic life.

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
LC50 - Fish [1]	> 5000 mg/l
EC50 - Crustacea [1]	> 1000 mg/l Source: IUCLID
EC50 96h - Algae [1]	> 1000 mg/l Source: IUCLID

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	51 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

Anti-Wear ISO 32 Hydraulic Oil	
Persistence and degradability	Biodegradability in water: no data available.

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Persistence and degradability	Not rapidly degradable

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

Anti-Wear ISO 32 Hydraulic Oil	
Bioaccumulative potential	No data available concerning bioaccumulation.

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according to the Hazardous Products Regulation (WHMIS 2015)

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)	
Partition coefficient n-octanol/water (Log Pow)	3.9 – 6 Source: IUCLID
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Bioaccumulative potential	Potential for bioaccumulation ($500 \leq \text{BCF} \leq 5000$).
BCF - Fish [1]	1730 (42 day(s), Cyprinus carpio, Flow-through system, Fresh water, Read-across, GLP)
Partition coefficient n-octanol/water (Log Pow)	6.66 (Experimental value, OECD 123: Partition Coefficient (1-Octanol/Water): Slow-Stirring Method, 23 °C)

12.4. Mobility in soil

Anti-Wear ISO 32 Hydraulic Oil	
Ecology - soil	No additional information available.
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)	
Mobility in soil	60460 Source: EPISUITE
Ecology - soil	Adsorbs into the soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.754 – 8.947 (log Koc, SRC PCKOCWIN v2.0, QSAR)

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.
Ecological waste information	: The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
Not regulated for transport			
14.2. UN Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated

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TDG	DOT	IMDG	IATA
14.4. Packing group, if applicable			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78⁹ and the IBC Code¹⁰

Not applicable

SECTION 15 Regulatory information

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Listed on the Canadian DSL (Domestic Substances List)

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

Listed on the Canadian DSL (Domestic Substances List)

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Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16 Other Information

Issue date : 07/07/2025

Revision date : 05/18/2026

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Supersedes : 07/07/2025

Data sources : Supplier's safety documents.

Training advice : Training staff on good practice.

Full text of hazard classes and H-statements:

H304	May be fatal if swallowed and enters airways
H361	Suspected of damaging fertility or the unborn child
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

Abbreviations and acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstracts Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration

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Abbreviations and acronyms:	
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety & Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.