

SECTION 1 Identification**1.1. Product identifier**

Product form : Mixture
Product name : AW ISO 68 Hydraulic Oil
Part Number : 10416

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

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****GHS US classification**

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. Label elements**GHS US labeling**

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : H361 - Suspected of damaging fertility or the unborn child
H413 - May cause long lasting harmful effects to aquatic life
Precautionary statements (GHS US) : 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.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P308+P313 - If exposed or concerned: Get medical advice/attention.

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P405 - Store locked up.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | GHS US classification |
|---|---------------------|----------|--|
| Distillates (petroleum), hydrotreated heavy paraffinic | CAS-No.: 64742-54-7 | 60 - 80* | Asp. Tox. 1, H304 Aquatic Chronic 4, H413 |
| 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 a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

| | |
|---|---|
| First-aid measures general | : IF exposed or concerned: Get medical advice/attention. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |
| Personal protection for first-aid responders. | : First aid workers will be equipped with suitable personal protective equipment. |

4.2. Most important symptoms/effects, acute and delayed

| | |
|-------------------------------------|---------------------------------|
| Symptoms/effects after inhalation | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

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 (and unsuitable) 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.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. 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.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.
Environmental precautions : Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up : Take up liquid spill into absorbent material. 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 13.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment.
Hygiene measures : 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.

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7.2. Conditions for safe storage, including incompatibilities

| | |
|---------------------|---|
| Technical measures | : Keep in a cool, well-ventilated place away from heat. |
| Storage conditions | : Store locked up. |
| 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 | : 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

Personal protective equipment:

Wear recommended personal protective equipment.

| |
|--|
| Hand protection: |
| Protective gloves |
| Eye protection: |
| Safety glasses |
| Skin and body protection: |
| Wear suitable protective clothing |
| Respiratory protection: |
| [In case of inadequate ventilation] wear respiratory protection. |

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

| | |
|----------------|---|
| Physical state | : Liquid |
| Color | : Mixture contains one or more component(s) which have the following color(s): Colourless Colourless to light yellow Yellow to brown Yellow Light yellow |
| Odor | : There may be no odor warning properties, odor is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odor: Ammonia odour Mild odour Odourless Irritating/pungent odour Asphyxiating odour Aromatic odour Pleasant odour |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |

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| | |
|---|------------------------------------|
| Flash point | : > 200 °C |
| Flammability (solid, gas) | : Not applicable. |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : 0.863 |
| Density | : 7.209 lb/gal |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : 65.9 mm ² /s @ 40 ° C |
| Explosion 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

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11 Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------|------------------|
| 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)) |
|---------------|---|

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| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) | |
|---|---|
| LD50 dermal rat | > 2000 mg/kg body weight (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 body weight 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 body weight 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 body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Aspiration hazard | : Not classified |
| AW ISO 68 Hydraulic Oil | |
| Viscosity, kinematic | 65.9 mm ² /s @ 40 ° C |
| Distillates (petroleum), hydrotreated heavy paraffinic (64742-54-7) | |
| Viscosity, kinematic | 18 mm ² /s |
| Hydrocarbon | Yes |
| Aliphatic, alicyclic or aromatic hydrocarbon | Yes |
| 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 | : None under normal conditions. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

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SECTION 12 Ecological information

12.1. Ecotoxicity

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) |
| EC50 72h - Algae [1] | > 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |
| ErC50 algae | > 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration) |

12.2. Persistence and degradability

| AW ISO 68 Hydraulic Oil | |
|---|-------------------------------------|
| Persistence and degradability | Not rapidly degradable |
| 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

| 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) | |
| 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) |
| Bioaccumulative potential | Potential for bioaccumulation (500 ≤ BCF ≤ 5000). |

12.4. Mobility in soil

| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) | |
|---|------------------------|
| Mobility in soil | 60460 Source: EPISUITE |

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| Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene (68411-46-1) | |
|--|--|
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 3.754 – 8.947 (log Koc, SRC PCKOCWIN v2.0, QSAR) |
| Ecology - soil | Adsorbs into the soil. |

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 DOT / TDG / IMDG / IATA

| DOT | TDG | IMDG | IATA |
|---|---------------|---------------|---------------|
| 14.1. UN number | | | |
| Not regulated for transport | | | |
| 14.2. 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 |
| 14.4. Packing group | | | |
| 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. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
Not regulated

TDG
Not regulated

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IMDG

Not regulated

IATA

Not regulated

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

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)

EU-Regulations

No additional information available

National regulations


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

Listed on INSQ (Mexican National Inventory of Chemical Substances)

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

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

 **WARNING:** This product can expose you to Formaldehyde (gas), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Revision date : 5/18/2026

Issue date : 3/10/2025

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 |

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| Full text of hazard classes and H-statements | |
|--|--|
| H412 | Harmful to aquatic life with long lasting effects |
| H413 | May cause long lasting harmful effects to aquatic life |

Safety Data Sheet (SDS), USA

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.