

**SECTION 1: Identification****1.1. Identification**

Product form : Mixture  
Product name : Develon UTTO Axle Fluid

**1.2. Recommended use and restrictions on use**

No additional information available

**1.3. Supplier**

Develon  
2905 Shawnee Industrial Way  
Suwanee, GA 30024  
USA  
T (678) 714-6000

**1.4. Emergency telephone number**

Emergency number : 1-800-424-9300 (CHEMTREC)

**SECTION 2: Hazard(s) identification****2.1. Classification of the substance or mixture****GHS US classification**

Not classified

**2.2. GHS Label elements, including precautionary statements****GHS US labeling**

No labeling applicable

**2.3. Other hazards which do not result in classification**

No additional information available

**2.4. Unknown acute toxicity (GHS US)**

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), SOLVENT-DEWAXED HEAVY PARAFFINIC	CAS-No.: 64742-65-0	50 - 60	Asp. Tox. 1, H304
HYDROTREATED MIDDLE DISTILLATE (PETROLEUM)	CAS-No.: 64742-46-7	1 - 5	Asp. Tox. 1, H304

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Name	Product identifier	%	GHS US classification
ZINC ALKYL DITHIOPHOSPHATE	CAS-No.: 68649-42-3	1 - 2.5	Eye Dam. 1, H318 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
BORATE ESTER	CAS-No.: TRADE SECRET	0.1 - 1	Skin Sens. 1B, H317
PHOSPHOROUS ACID, TRIPHENYL ESTER	CAS-No.: 101-02-0	0.025 - 0.1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

\*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 first aid measures

First-aid measures general	: Call a poison center/doctor/physician if you feel unwell. First aider: Pay attention to self-protection.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Seek medical attention if ill effect or irritation develops.
First-aid measures after skin contact	: Seek medical attention if ill effect or irritation develops. Wash skin with plenty of water.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth. If you feel unwell, seek medical advice.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
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#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ). 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	: vapors may cause fire/explosion if source of ignition is present. Watch out for invisible flames. The vapors are denser than air and may travel along the ground. Distance ignition possible.
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#### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Evacuate area. Use water spray or fog for cooling exposed containers. Do not allow water to enter the vessels, a violent reaction may occur. Eliminate all ignition sources if safe to do so. Fight fire from safe distance and protected location. In case of fire: Stop leak if safe to do so.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: High temperature decomposition products are harmful by inhalation. On exposure to high temperature, may decompose, releasing toxic gases.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Clean up any spills as soon as possible, using an absorbent material to collect it. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Eliminate every possible source of ignition. Evacuate area.

##### 6.1.1. For non-emergency personnel

Protective equipment : Avoid contact with skin, eyes and clothing. Wear recommended personal protective equipment.  
Emergency procedures : Evacuate unnecessary personnel. Do not breathe vapors. No open flames, no sparks, and no smoking.

##### 6.1.2. For emergency responders

Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".  
Emergency procedures : Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

#### 6.2. Environmental precautions

Do not allow to enter drains or water courses. Notify authorities if product enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

For containment : Stop leak, if possible without risk. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.  
Methods for cleaning up : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation. Clear up rapidly by scoop or vacuum.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.  
Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe vapors. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Handling temperature : ≤ 140 °F  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wear personal protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Separate working clothes from town clothes. Launder separately.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Keep only in original container. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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#### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	5 mg/m <sup>3</sup> Contains highly refined petroleum oil
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#### USA - OSHA - Occupational Exposure Limits

OSHA PEL TWA	5 mg/m <sup>3</sup> Contains highly refined petroleum oil
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OSHA PEL STEL	10 mg/m <sup>3</sup> Contains highly refined petroleum oil
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### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Wear recommended personal protective equipment.

#### Hand protection:

Protective gloves. nitrile rubber gloves

#### Eye protection:

Chemical goggles or safety glasses

#### Skin and body protection:

Wear suitable protective clothing. Wear impervious rubber safety shoes. Chemical resistant apron

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

#### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: amber
Odor	: characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 198 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available

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Relative density	: 0.884 @ 15.6°C
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	: 55 mm <sup>2</sup> /s @ 40°C
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

### 9.2. Other information

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

None under normal use.

### 10.4. Conditions to avoid

High temperature.

### 10.5. Incompatible materials

Acids. Oxidizing agent.

### 10.6. Hazardous decomposition products

fume. Carbon dioxide. Carbon monoxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

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

### PHOSPHOROUS ACID, TRIPHENYL ESTER (101-02-0)

LD50 dermal rat	> 5000 mg/kg body weight Animal: rat, Guideline: other:
LD50 dermal rabbit	2000 – 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 21 day(s))
LC50 Inhalation - Rat	> 6.7 mg/l air (Equivalent or similar to OECD 403, 1 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 21 day(s))
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	2000 mg/kg body weight

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<b>DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC (64742-65-0)</b>	
LD50 dermal rabbit	> 2000 mg/kg Source: IUCLID
LC50 Inhalation - Rat (Dust/Mist)	2.18 mg/l Source: IUCLID
ATE US (dust, mist)	2.18 mg/l/4h
<b>ZINC ALKYL DITHIOPHOSPHATE (68649-42-3)</b>	
LD50 dermal rabbit	> 3160 mg/kg Source: ECHA
LC50 Inhalation - Rat	> 5000 mg/m <sup>3</sup> Source: ECHA
Skin corrosion/irritation	: Not classified
<b>PHOSPHOROUS ACID, TRIPHENYL ESTER (101-02-0)</b>	
pH	No data available in the literature
<b>ZINC ALKYL DITHIOPHOSPHATE (68649-42-3)</b>	
pH	5.5 – 7.5 Source: ECHA
Serious eye damage/irritation	: Not classified.
<b>PHOSPHOROUS ACID, TRIPHENYL ESTER (101-02-0)</b>	
pH	No data available in the literature
<b>ZINC ALKYL DITHIOPHOSPHATE (68649-42-3)</b>	
pH	5.5 – 7.5 Source: ECHA
Respiratory or skin sensitization	: Skin sensitization: Not classified.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
<b>ZINC ALKYL DITHIOPHOSPHATE (68649-42-3)</b>	
NOAEL (animal/female, F0/P)	300 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:
NOAEL (animal/female, F1)	1000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
<b>PHOSPHOROUS ACID, TRIPHENYL ESTER (101-02-0)</b>	
NOAEL (oral,rat,90 days)	15 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
<b>DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC (64742-65-0)</b>	
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)
Aspiration hazard	: Not classified
Viscosity, kinematic	: 55 mm <sup>2</sup> /s @ 40°C
<b>PHOSPHOROUS ACID, TRIPHENYL ESTER (101-02-0)</b>	
Viscosity, kinematic	18 mm <sup>2</sup> /s (20 °C, OECD 114: Viscosity of Liquids)

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### ZINC ALKYL DITHIOPHOSPHATE (68649-42-3)

Viscosity, kinematic 9 – 15 mm<sup>2</sup>/s Temp.: 'other:' Parameter: 'kinematic viscosity (in mm<sup>2</sup>/s)'

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Develon UTTO Axle Fluid

LC50 - Fish [1] > 100 mg/l

LC50 - Other aquatic organisms [1] > 100 mg/l

#### PHOSPHOROUS ACID, TRIPHENYL ESTER (101-02-0)

LC50 - Fish [1] 0.7 mg/l (96 h, Carassius auratus, Literature study)

EC50 96h - Algae [1] 0.013 mg/l Source: Ecological Structure Activity Relationships

#### DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC (64742-65-0)

LC50 - Fish [1] > 5000 mg/l Source: IUCLID

EC50 - Crustacea [1] > 1000 mg/l Source: IUCLID

EC50 96h - Algae [1] > 1000 mg/l Source: IUCLID

#### ZINC ALKYL DITHIOPHOSPHATE (68649-42-3)

LC50 - Fish [1] 1 – 5 mg/l Source: ECHA

EC50 - Crustacea [1] 1 – 1.5 mg/l Source: IUCLID

EC50 96h - Algae [1] 1 – 5 mg/l Source: IUCLID

### 12.2. Persistence and degradability

#### Develon UTTO Axle Fluid

Persistence and degradability Not rapidly degradable

#### HYDROTREATED MIDDLE DISTILLATE (PETROLEUM) (64742-46-7)

Persistence and degradability Not rapidly degradable

#### BORATE ESTER (TRADE SECRET)

Persistence and degradability Not rapidly degradable

#### PHOSPHOROUS ACID, TRIPHENYL ESTER (101-02-0)

Persistence and degradability Readily biodegradable in water.

#### DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC (64742-65-0)

Persistence and degradability Biodegradability in water: no data available.

#### ZINC ALKYL DITHIOPHOSPHATE (68649-42-3)

Persistence and degradability Not rapidly degradable

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### 12.3. Bioaccumulative potential

#### PHOSPHOROUS ACID, TRIPHENYL ESTER (101-02-0)

BCF - Other aquatic organisms [1]	10910 l/kg (BCFBFAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	6.62 (Calculated, KOWWIN, 25 °C)
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).

#### DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC (64742-65-0)

Partition coefficient n-octanol/water (Log Pow)	3.9 – 6 (Calculated)
Bioaccumulative potential	No bioaccumulation data available.

#### ZINC ALKYL DITHIOPHOSPHATE (68649-42-3)

Partition coefficient n-octanol/water (Log Pow)	14.876 Source: ECHA
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### 12.4. Mobility in soil

#### PHOSPHOROUS ACID, TRIPHENYL ESTER (101-02-0)

Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	5.745 – 6.281 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Adsorbs into the soil. Toxic to flora.

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

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	: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Clean up even minor leaks or spills if possible without unnecessary risk. Do not re-use empty containers.
Ecological information	: Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT

### 14.1. UN number

DOT NA No	: Not regulated
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### 14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Not regulated
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### 14.3. Transport hazard class(es)

**DOT**

Transport hazard class(es) (DOT) : Not regulated

### 14.4. Packing group

Packing group (DOT) : Not regulated

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

**DOT**

Not regulated

### 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. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
HYDROTREATED MIDDLE DISTILLATE (PETROLEUM)	64742-46-7	Present	Active	
BORATE ESTER	TRADE SECRET	Not present	-	
PHOSPHOROUS ACID, TRIPHENYL ESTER	101-02-0	Not present	-	
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC	64742-65-0	Not present	-	
ZINC ALKYL DITHIOPHOSPHATE	68649-42-3	Not present	-	

### 15.2. International regulations

**CANADA****Develon UTTO Axle Fluid**

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

**HYDROTREATED MIDDLE DISTILLATE (PETROLEUM) (64742-46-7)**

Listed on the Canadian DSL (Domestic Substances List)

**BORATE ESTER (TRADE SECRET)**

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

**EU-Regulations**

No additional information available

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### National regulations

#### HYDROTREATED MIDDLE DISTILLATE (PETROLEUM) (64742-46-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. US State regulations

No additional information available

## SECTION 16: Other information

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### Full text of H-phrases

H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard

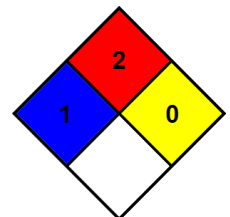
: 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard

: 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

: 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability

: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

: B - Safety glasses, Gloves

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.