

# Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations SDS ID: 31524

Issue date: 11/17/2023 Version: 1.0

# **SECTION 1: Identification**

#### 1.1. Identification

Product form : Mixture

Product name : Develon Synthetic Automatic Transmission Fluid Heavy Duty

## 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
1-DECENE, TETRAMER AND TRIMER HYDROGENATED	CAS-No.: 68649-12-7	20 - 30	Asp. Tox. 1, H304
DIISOOCTYL ADIPATE	CAS-No.: 1330-86-5	10 - 20	Not classified

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Name	Product identifier	%	GHS US classification
ALKYL METHACRYLATE, ALKYLAMINOALKYLMETHACRYLAMIDE COPOLYMER	CAS-No.: TRADE SECRET	1 - 5	Eye Irrit. 2A, H319 Aquatic Chronic 4, H413
2,6-DI-TERT-BUTYLPHENOL	CAS-No.: 128-39-2	0.1 - 1	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
BIS(2-HYDROXYETHYL) TALLOW AMINE	CAS-No.: 61791-44-4	0.025 - 0.1	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1H-IMIDAZOLE-1-ETHANOL, 2-(8-HEPTADECENYL)-4,5-DIHYDRO	CAS-No.: 95-38-5	0.01 - 0.025	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
N,N-DIMETHYLOCTADECAN-1-AMINE	CAS-No.: 124-28-7	0.01 - 0.025	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

<sup>\*</sup>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

No additional information available

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

No additional information available

# 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

# **SECTION 5: Fire-fighting measures**

# 5.1. Suitable (and unsuitable) extinguishing media

No additional information available

# 5.2. Specific hazards arising from the chemical

No additional information available

## 5.3. Special protective equipment and precautions for fire-fighters

No additional information available

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#### **SECTION 6: Accidental release measures**

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

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

No additional information available

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

No additional information available

#### 6.4. Reference to other sections

No additional information available

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

No additional information available

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

No additional information available

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

No additional information available

# 8.2. Appropriate engineering controls

No additional information available

# 8.3. Individual protection measures/Personal protective equipment

No additional information available

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

Physical state : Liquid Color : red

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 : 230 °C

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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 Relative density : 0.847 @ 15.6°C Solubility : No data available Partition coefficient n-octanol/water (Log Pow) : No data available No data available Auto-ignition temperature Decomposition temperature No data available 36 mm²/s @ 40°C Viscosity, kinematic Viscosity, dynamic : No data available : No data available **Explosion limits** 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

No additional information available

#### 10.2. Chemical stability

No additional information available

#### 10.3. Possibility of hazardous reactions

No additional information available

# 10.4. Conditions to avoid

No additional information available

# 10.5. Incompatible materials

No additional information available

# 10.6. Hazardous decomposition products

No additional information available

# **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

## 1H-IMIDAZOLE-1-ETHANOL, 2-(8-HEPTADECENYL)-4,5-DIHYDRO (95-38-5)

ATE US (oral) 500 mg/kg body weight

#### **DIISOOCTYL ADIPATE (1330-86-5)**

LD50 dermal rabbit > 7940 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal, 14 day(s))

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DIISOOCTYL ADIPATE (1330-86-5)	
LC50 Inhalation - Rat	> 5.7 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Read-across, Inhalation, 14 week(s))
N,N-DIMETHYLOCTADECAN-1-AMINE (12	24-28-7)
LD50 dermal rabbit	3432 mg/kg Source: USEPA / HPV
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	3432 mg/kg body weight
2,6-DI-TERT-BUTYLPHENOL (128-39-2)	
LD50 dermal rat	> 1000 mg/kg Source: IUCLID
BIS(2-HYDROXYETHYL) TALLOW AMINE	(61791-44-4)
ATE US (oral)	500 mg/kg body weight
Skin corrosion/irritation	: Not classified
N,N-DIMETHYLOCTADECAN-1-AMINE (12	24-28-7)
рН	10 (Test data, 5 %, 20 °C)
2,6-DI-TERT-BUTYLPHENOL (128-39-2)	
рН	No data available in the literature
Serious eye damage/irritation	: Not classified
N,N-DIMETHYLOCTADECAN-1-AMINE (12	24-28-7)
рН	10 (Test data, 5 %, 20 °C)
2,6-DI-TERT-BUTYLPHENOL (128-39-2)	
рН	No data available in the literature
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity Carcinogenicity	: Not classified : Not classified
N,N-DIMETHYLOCTADECAN-1-AMINE (12	
NOAEL (chronic,oral,animal/male,2 years)	42.3 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (chronic,oral,animal/female,2 years)	52.6 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Reproductive toxicity	: Not classified
DIISOOCTYL ADIPATE (1330-86-5)	
LOAEL (animal/male, F0/P)	2102 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 415 [One Generation Reproduction Toxicity Study (before 9 October 2017)]
LOAEL (animal/female, F0/P)	2399 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 415 [One-Generation Reproduction Toxicity Study (before 9 October 2017)]
LOAEL (animal/male, F1)	2102 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 415 [One Generation Reproduction Toxicity Study (before 9 October 2017)]
LOAEL (animal/female, F1)	2399 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 415

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[One-Generation Reproduction Toxicity Study (before 9 October 2017)]

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DIISOOCTYL ADIPATE (1330-86-5)	
NOAEL (animal/male, F1)	178 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 415 [One-Generation Reproduction Toxicity Study (before 9 October 2017)]
NOAEL (animal/female, F1)	203 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 415 [One-Generation Reproduction Toxicity Study (before 9 October 2017)]
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
1H-IMIDAZOLE-1-ETHANOL, 2-(8-HEPTADE	CENYL)-4,5-DIHYDRO (95-38-5)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
DIISOOCTYL ADIPATE (1330-86-5)	
NOAEL (subchronic,oral,animal/male,90 days)	200 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (subchronic,oral,animal/female,90 days)	387 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
2,6-DI-TERT-BUTYLPHENOL (128-39-2)	
NOAEL (oral,rat,90 days)	100 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))
Aspiration hazard	: Not classified
Viscosity, kinematic	: 36 mm²/s @ 40°C
DIISOOCTYL ADIPATE (1330-86-5)	
Viscosity, kinematic	14.5 mm²/s (25 °C, ASTM D445: Capillary viscometer)
N,N-DIMETHYLOCTADECAN-1-AMINE (124-	28-7)

# Viscosity, kinematic

**SECTION 12: Ecological information** 

2,6-DI-TERT-BUTYLPHENOL (128-39-2)

#### 10.1 = 1.11

Viscosity, kinematic

1-DECENE, TETRAMER AND TRIMER HYDROGENATED (68649-12-7)			
LC50 - Fish [1]	> 1000 mg/l Source: e-ChemPortal;HPVIS		
EC50 96h - Algae [1] > 1000 mg/l Source: e-ChemPortal;HPVIS			
DIISOOCTYL ADIPATE (1330-86-5)			
LC50 - Fish [1]	5500 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Read-across)		
LC50 - Other aquatic organisms [1] 0.000794 mg/l Source: QSAR			
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Read-across)		

Not applicable (solid)

8.19 mm²/s (30 °C, OECD 114: Viscosity of Liquids, Test data)

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Persistence and degradability

Persistence and degradability

Chemical oxygen demand (COD)

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EC50 72h - Algae [1]	> 46 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP)		
EC50 72h - Algae [2]	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Scenedesmus subspicatus, Static system, Fresh water, Read-across)		
EC50 96h - Algae [1]	0.003 mg/l Source: QSAR		
N,N-DIMETHYLOCTADECAN-1-AMINE	(124-28-7)		
LC50 - Fish [1]	0.256 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Read-across, Nominal concentration)		
EC50 - Crustacea [1]	55.8 μg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semistatic system, Fresh water, Read-across)		
EC50 72h - Algae [1]	14.1 μg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)		
LOEC (chronic)	0.108 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		
2,6-DI-TERT-BUTYLPHENOL (128-39-2)			
LC50 - Fish [1]	1.4 mg/l (ASTM E729-80, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)		
EC50 - Crustacea [1]	0.45 mg/l (US EPA, 48 h, Daphnia magna, Flow-through system, Fresh water, Experimental value, Locomotor effect)		
EC50 72h - Algae [1]	3.6 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)		
EC50 72h - Algae [2]	1.4 mg/l Test organisms (species): Raphidocelis subcapitata (previous names:     Pseudokirchneriella subcapitata, Selenastrum capricornutum)		
EC50 96h - Algae [1]	3.9 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)		
EC50 96h - Algae [2]	1.2 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)		
LOEC (chronic)	0.086 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		
NOEC (chronic)	0.035 mg/l Test organisms (species): Daphnia magna Duration: '21 d'		
12.2. Persistence and degradability			
Develon Synthetic Automatic Transmis	ssion Fluid Heavy Duty		
Persistence and degradability	Not rapidly degradable		
- ·			
1-DECENE, TETRAMER AND TRIMER H	HYDROGENATED (68649-12-7)		

Not rapidly degradable

2.72 g O<sub>2</sub>/g substance

Readily biodegradable in water.

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Persistence and degradability	Readily biodegradable in water.				
ALKYL METHACRYLATE, ALKYLAMINOALKYLMETHACRYLAMIDE COPOLYMER (TRADE SECRET)					
Persistence and degradability	Not rapidly degradable				
2,6-DI-TERT-BUTYLPHENOL (128-39-2)					
Persistence and degradability	Not readily biodegradable in water.				
BIS(2-HYDROXYETHYL) TALLOW AMINE (	61791-44-4)				
Persistence and degradability	Not rapidly degradable				
12.3. Bioaccumulative potential					
1-DECENE, TETRAMER AND TRIMER HYD	ROGENATED (68649-12-7)				
Partition coefficient n-octanol/water (Log Pow)	7.64 Source: e-ChemPortal;HPVIS				
DIISOOCTYL ADIPATE (1330-86-5)					
BCF - Fish [1]	27 (28 day(s), Lepomis macrochirus, Flow-through system, Fresh water, Read-across)				
Partition coefficient n-octanol/water (Log Pow)	8.12 (QSAR)				
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).				

N,N-DIMETHTLOCTADECAN-T-AMINE (124-20-1)		
Partition coefficient n-octanol/water (Log Pow)	1.9 (Calculated, Read-across, 20 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	

2,6-DI-TERT-BUTYLPHENOL (128-39-2)	
BCF - Fish [1]	660 l/kg (3 day(s), Leuciscus idus, Static system, Fresh water, Weight of evidence)
Partition coefficient n-octanol/water (Log Pow)	4.5 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 24 °C)
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).

# 12.4. Mobility in soil

12.4. Mobility III 50II				
1-DECENE, TETRAMER AND TRIMER HYDROGENATED (68649-12-7)				
Mobility in soil	192200000 Source: EPISUITE			
DIISOOCTYL ADIPATE (1330-86-5)				
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	dsorption Coefficient 5.2853 (log Koc, Other, QSAR)			
Ecology - soil	Low potential for mobility in soil.			
N,N-DIMETHYLOCTADECAN-1-AMINE (124-28-7)				
Surface tension	32.2 mN/m (25 °C, Read-across, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)			
Organic Carbon Normalized Adsorption Coefficient (Log Koc)  3.362 (log Koc, OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method, across, Activated sludge)				
Ecology - soil	Low potential for mobility in soil.			

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2,6-DI-TERT-BUTYLPHENOL (128-39-2)		
Surface tension	30.1 mN/m (QSAR)	
Ecology - soil	Low potential for mobility in soil.	

#### 12.5. Other adverse effects

No additional information available

# **SECTION 13: Disposal considerations**

## 13.1. Disposal methods

No additional information available

# **SECTION 14: Transport information**

In accordance with DOT

14.1. UN number

DOT NA No : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not regulated

## 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.	J	Commercial status	Flags
1-DECENE, TETRAMER AND TRIMER HYDROGENATED	68649-12-7	Present	Active	

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Name	CAS-No.	Listing	Commercial status	Flags
1H-IMIDAZOLE-1-ETHANOL, 2-(8- HEPTADECENYL)-4,5-DIHYDRO	95-38-5	Not present	-	
DIISOOCTYL ADIPATE	1330-86-5	Not present	-	
N,N-DIMETHYLOCTADECAN-1-AMINE	124-28-7	Not present	-	
ALKYL METHACRYLATE, ALKYLAMINOALKYLMETHACRYLAMIDE COPOLYMER	TRADE SECRET	Not present	-	
2,6-DI-TERT-BUTYLPHENOL	128-39-2	Not present	-	
BIS(2-HYDROXYETHYL) TALLOW AMINE	61791-44-4	Not present	-	

# 15.2. International regulations

#### CANADA

## 1-DECENE, TETRAMER AND TRIMER HYDROGENATED (68649-12-7)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

No additional information available

## National regulations

No additional information available

# 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	
H314	Causes severe skin burns and eye damage	
H315	Causes skin irritation	
H319	Causes serious eye irritation	
H373	May cause damage to organs through prolonged or repeated exposure	
H400	Very toxic to aquatic life	
H410	Very toxic 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.