

HiTEC® 3435A Performance Additive

SDS no. H3435A

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

1.1 Product identifier

Product name : HiTEC® 3435A Performance Additive
Product description : Petrochemical industry: Automatic Transmission Fluid Additive Package
Product type : Liquid.
UFI : 4790-XMCP-8M6V-KW6A

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

Identified uses
Formulation of additive packages, lubricants and greases - Industrial
General use of lubricants and greases in vehicles or machinery - Industrial
General use of lubricants and greases in vehicles or machinery - Professional

See section 7.3 and where applicable the annex to this Safety Data Sheet for further information on the relevant uses.

1.3 Details of the supplier of the safety data sheet

Afton Chemical Limited Euro-Tech Centre London Road, Bracknell, RG12 2UW, England Tel: +44 1344 304141	Afton Chemical S.R.L. (Woluwe) Alma Court, Lenneke Marelaan, 8 B-1932 St-Stevens-Woluwe Belgium Tel: +32 2 715 2211	Afton Chemical S.R.L. (Feluy Plant) Rue de Scoufflény, 50 B-7191 Ecaussinnes Lalaing, Belgium Tel: +32 67 286211
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e-mail address of person responsible for this SDS : Lubricant and Fuel additives: msds@aftonchemical.com

1.4 Emergency telephone number

Hours of operation : 24 hours a day, 7 days a week
Telephone number :

+43-13649237 (Austria)	+351-308801773 (Portugal)
+32-28083237 (Belgium)	+421-233057972 (Slovakia)
+359-32570104 (Bulgaria)	+38-618888016 (Slovenia)
+385-17776920 (Croatia)	+46-852503403 (Swedish)
+420-228880039 (Czech Republic)	+41-435082011 (Switzerland)
+45-69918573 (Denmark)	+380-947101374 (Ukraine)
+358-942419014 (Finland)	+44-8708200418 (UK)
+33-975181407 (France)	+1-703-527-3887 (International)
+49-69-6435-08409 (Germany)	+65-3158-1349 (Asia Pacific)
+36-18088425 (Hungary)	+61-290372994 (Australia)
+353-19014670 (Ireland)	4001-204937 (China)
+39-0245557031 (Italy)	+(91)-22-3354 3594 (India)
+352-20202416 (Luxembourg)	+81-345209637 (Japan)
+31-858880596 (The Netherlands)	00-308-13-2549 (South Korea)
+47-21930678 (Norway)	+1-703-741-5979 (Spanish language)
+48-223988029 (Poland)	1-800-424-9300 (US & Canada)

Limited Availability - EU Poison Centre Contact Numbers:

Pursuant to EU guidance and legislative text, Afton Chemical Ltd. are providing the appropriate EU In-Country Poison Centre numbers and the specified limitations on their hours of service. Afton Chemical Ltd. make no representations as to the accuracy of the availability, support, information and/or guidance provided by any the following state sponsored Centres.

Belgium: +32 (0)70 245 245	Netherlands: +31 (0)30 2748888
Denmark: +45 8212 1212	Norway: +47 22 59 13 00
France: +33 (0)1 45 42 59 59	Poland: Not available for SDS use
Germany: To be specified soon	Portugal: +351 800 250 250
Greece: +30 210 779 3777	Romania: +40 (0)21 318 36 06 (8am – 3pm)
Italy: Not available for SDS use	Spain: +34 91 562 04 20
Latvia: +371 67042473 (Fire & Rescue: 112)	UK: Not available for SDS use

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

Austria: +43-13649237

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Product definition** : Mixture**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Aquatic Chronic 3, H412

See Section 11 for more detailed information on health effects and symptoms.

See Section 12 for environmental precautions.

See Section 16 for the full text of the H statements declared above.

2.2 Label elements**Hazard pictograms** :**Signal word** : No signal word.**Hazard statements** : Harmful to aquatic life with long lasting effects.**Precautionary statements****Prevention** : Avoid release to the environment.**Response** : Not applicable.**Storage** : Store in a well-ventilated place.**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.**Supplemental label elements** : Not applicable.**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.**2.3 Other hazards****Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** :

PBT	P	B	T	vPvB	vP	vB
Not available.						

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.**SECTION 3: Composition/information on ingredients****3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
Short-, medium- and long-chain alkyl methacrylates and short-chain alkyl methacrylamide copolymer	EU Confidentiality: ACC-QT664993-91 GB Confidentiality: ACN-AFT-25032021-PXL-01	≥25 - ≤35	Eye Irrit. 2, H319	[1]
Distillates (petroleum), hydrotreated heavy paraffinic	REACH #: 01-2119484627-25 EC: 265-157-1 CAS: 64742-54-7	≥10 - ≤15	Not classified.	[2]
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	REACH #: 01-2119474878-16	≥10 - ≤15	Asp. Tox. 1, H304	[1] [2]

SECTION 3: Composition/information on ingredients

Distillates (petroleum), hydrotreated light paraffinic	EC: 276-737-9 CAS: 72623-86-0 REACH #: 01-2119487077-29 EC: 265-158-7 CAS: 64742-55-8	≥10 - ≤15	Asp. Tox. 1, H304	[1] [2]
Distillates (petroleum), hydrotreated light paraffinic	REACH #: 01-2119487077-29 EC: 265-158-7 CAS: 64742-55-8	≥5 - ≤10	Not classified.	[2]
Long-chain and very long-chain alkenyl succinimide	EU Confidentiality: ACC-NN808816-16	≥1 - ≤3	Aquatic Chronic 4, H413	[1]
Amines, C11-14-branched alkyl, monoethyl and diethyl phosphates	REACH #: 01-2119976322-36 EC: 279-632-6 CAS: 80939-62-4	≥1 - ≤2.3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	[1]
dimantine	REACH #: 01-2119486676-20 EC: 204-694-8 CAS: 124-28-7	≥0.5 - <1	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1]
methyl-1H-benzotriazole	REACH #: 01-2119979081-35 EC: 249-596-6 CAS: 29385-43-1	≥0.1 - ≤0.3	Acute Tox. 4, H302 Repr. 2, H361d Aquatic Chronic 2, H411	[1]
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	REACH #: 01-2119777867-13 EC: 202-414-9 CAS: -	≥0.1 - ≤0.3	Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 STOT RE 2, H373 (gastrointestinal tract, thymus) (oral) Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

The mineral oils in the product contain < 3% DMSO extract (IP 346).

If REACH registration numbers do not appear the substance is either exempt from registration, does not meet the minimum volume threshold for registration, the registration date has not yet come due or this information is proprietary.

If a dash (-) is shown in the CAS number field, please contact an Afton representative for information about the CAS and other chemical identity numbers used for global regulatory compliance.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. If

SECTION 4: First aid measures

- not breathing, give artificial respiration. If breathing is difficult, administer oxygen.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media** : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
phosphorus oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name

Exposure limit values

Europe

SECTION 8: Exposure controls/personal protection

Distillates (petroleum), hydrotreated heavy paraffinic

EU OEL (Europe).
TWA: 5 mg/m³ 8 hours.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

EU OEL (Europe).
TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe, 2002).
TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe).
TWA: 5 mg/m³ 8 hours.

Austria

Distillates (petroleum), hydrotreated heavy paraffinic

EU OEL (Europe).
TWA: 5 mg/m³ 8 hours.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

EU OEL (Europe).
TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe, 2002).
TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe).
TWA: 5 mg/m³ 8 hours.

Belgium

Distillates (petroleum), hydrotreated heavy paraffinic

Limit values (Belgium, 1/2020).
TWA: 5 mg/m³ 8 hours. Form: mist
STEL: 10 mg/m³ 15 minutes. Form: mist

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Limit values (Belgium, 1/2020).
TWA: 5 mg/m³ 8 hours. Form: mist
STEL: 10 mg/m³ 15 minutes. Form: mist

Distillates (petroleum), hydrotreated light paraffinic

Limit values (Belgium, 1/2020).
TWA: 5 mg/m³ 8 hours. Form: mist
STEL: 10 mg/m³ 15 minutes. Form: mist

Distillates (petroleum), hydrotreated light paraffinic

Limit values (Belgium, 1/2020).
TWA: 5 mg/m³ 8 hours. Form: mist
STEL: 10 mg/m³ 15 minutes. Form: mist

Bulgaria

Distillates (petroleum), hydrotreated heavy paraffinic

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 1/2020).

Limit value 8 hours: 5 mg/m³ 8 hours.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 1/2020).

Limit value 8 hours: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 1/2020).

Limit value 8 hours: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 1/2020).

Limit value 8 hours: 5 mg/m³ 8 hours.

Croatia

Distillates (petroleum), hydrotreated heavy paraffinic

EU OEL (Europe).
TWA: 5 mg/m³ 8 hours.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

EU OEL (Europe).
TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe, 2002).
TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe).
TWA: 5 mg/m³ 8 hours.

Czech Republic

Distillates (petroleum), hydrotreated heavy paraffinic

Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 2/2020).
TWA: 5 mg/m³ 8 hours. Form: aerosol
STEL: 10 mg/m³ 15 minutes. Form: aerosol

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 2/2020).
TWA: 5 mg/m³ 8 hours. Form: aerosol
STEL: 10 mg/m³ 15 minutes. Form: aerosol

Distillates (petroleum), hydrotreated light paraffinic

Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 2/2020).
TWA: 5 mg/m³ 8 hours. Form: aerosol
STEL: 10 mg/m³ 15 minutes. Form: aerosol

Distillates (petroleum), hydrotreated light paraffinic

Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 2/2020).
TWA: 5 mg/m³ 8 hours. Form: aerosol
STEL: 10 mg/m³ 15 minutes. Form: aerosol

Denmark

Distillates (petroleum), hydrotreated heavy paraffinic

Working Environment Authority (Denmark, 12/2019).
TWA: 1 mg/m³ 8 hours. Form: mist and particles

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Working Environment Authority (Denmark, 12/2019).
TWA: 1 mg/m³ 8 hours. Form: mist and particles

Distillates (petroleum), hydrotreated light paraffinic

Working Environment Authority (Denmark, 12/2019).
TWA: 1 mg/m³ 8 hours. Form: mist and particles

Distillates (petroleum), hydrotreated light paraffinic

Working Environment Authority (Denmark, 12/2019).
TWA: 1 mg/m³ 8 hours. Form: mist and particles

Estonia

SECTION 8: Exposure controls/personal protection

Distillates (petroleum), hydrotreated heavy paraffinic

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe, 2002).TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.**Finland**

Distillates (petroleum), hydrotreated heavy paraffinic

Institute of Occupational Health, Ministry of Social Affairs (Finland, 12/2019).TWA: 5 mg/m³ 8 hours. Form: Mist

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Institute of Occupational Health, Ministry of Social Affairs (Finland, 12/2019).TWA: 5 mg/m³ 8 hours. Form: Mist

Distillates (petroleum), hydrotreated light paraffinic

Institute of Occupational Health, Ministry of Social Affairs (Finland, 12/2019).TWA: 5 mg/m³ 8 hours. Form: Mist

Distillates (petroleum), hydrotreated light paraffinic

Institute of Occupational Health, Ministry of Social Affairs (Finland, 12/2019).TWA: 5 mg/m³ 8 hours. Form: Mist**France**

Distillates (petroleum), hydrotreated heavy paraffinic

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe, 2002).TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.**Germany**

Distillates (petroleum), hydrotreated heavy paraffinic

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe, 2002).TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.**Greece**

Distillates (petroleum), hydrotreated heavy paraffinic

Ministry of Labour and Social Affairs (Greece, 3/2020).TWA: 5 mg/m³ 8 hours. Form: mist

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Ministry of Labour and Social Affairs (Greece, 3/2020).TWA: 5 mg/m³ 8 hours. Form: mist

Distillates (petroleum), hydrotreated light paraffinic

Ministry of Labour and Social Affairs (Greece, 3/2020).TWA: 5 mg/m³ 8 hours. Form: mist

Distillates (petroleum), hydrotreated light paraffinic

Ministry of Labour and Social Affairs (Greece, 3/2020).TWA: 5 mg/m³ 8 hours. Form: mist**Hungary**

Distillates (petroleum), hydrotreated heavy paraffinic

25/2000. (IX.30) Ministry of Health and Ministry of Social and Family Affairs Joint Decree (Hungary, 8/2018).CEIL: 5 mg/m³ Form: mist

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

25/2000. (IX.30) Ministry of Health and Ministry of Social and Family Affairs Joint Decree (Hungary, 8/2018).CEIL: 5 mg/m³ Form: mist

Distillates (petroleum), hydrotreated light paraffinic

25/2000. (IX.30) Ministry of Health and Ministry of Social and Family Affairs Joint Decree (Hungary, 8/2018).CEIL: 5 mg/m³ Form: mist

Distillates (petroleum), hydrotreated light paraffinic

25/2000. (IX.30) Ministry of Health and Ministry of Social and Family Affairs Joint Decree (Hungary, 8/2018).CEIL: 5 mg/m³ Form: mist**Iceland**

Distillates (petroleum), hydrotreated heavy paraffinic

Minsitry of Welfare, List of Exposure Limits (Iceland, 11/2018).TWA: 1 mg/m³ 8 hours. Form: particulates

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Minsitry of Welfare, List of Exposure Limits (Iceland, 11/2018).TWA: 1 mg/m³ 8 hours. Form: particulates

Distillates (petroleum), hydrotreated light paraffinic

Minsitry of Welfare, List of Exposure Limits (Iceland, 11/2018).TWA: 1 mg/m³ 8 hours. Form: particulates

Distillates (petroleum), hydrotreated light paraffinic

Minsitry of Welfare, List of Exposure Limits (Iceland, 11/2018).TWA: 1 mg/m³ 8 hours. Form: particulates**Ireland**

Distillates (petroleum), hydrotreated heavy paraffinic

NAOSH (Ireland, 1/2020).

OELV-8hr: 5 ppm 8 hours. Form: Inhalable fraction

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

NAOSH (Ireland, 1/2020).

OELV-8hr: 5 ppm 8 hours. Form: Inhalable fraction

Distillates (petroleum), hydrotreated light paraffinic

NAOSH (Ireland, 1/2020).

OELV-8hr: 5 ppm 8 hours. Form: Inhalable fraction

Distillates (petroleum), hydrotreated light paraffinic

NAOSH (Ireland, 1/2020).

OELV-8hr: 5 ppm 8 hours. Form: Inhalable fraction

Israel

SECTION 8: Exposure controls/personal protection

Italy

Distillates (petroleum), hydrotreated heavy paraffinic	EU OEL (Europe). TWA: 5 mg/m ³ 8 hours.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	EU OEL (Europe). TWA: 5 mg/m ³ 8 hours.
Distillates (petroleum), hydrotreated light paraffinic	EU OEL (Europe, 2002). TWA: 5 mg/m ³ 8 hours.
Distillates (petroleum), hydrotreated light paraffinic	EU OEL (Europe). TWA: 5 mg/m ³ 8 hours.

Latvia

Distillates (petroleum), hydrotreated heavy paraffinic	Ministers Cabinet Regulations Nr.325 - AER (Latvia, 1/2020). TWA: 5 mg/m ³ 8 hours.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Ministers Cabinet Regulations Nr.325 - AER (Latvia, 1/2020). TWA: 5 mg/m ³ 8 hours.
Distillates (petroleum), hydrotreated light paraffinic	Ministers Cabinet Regulations Nr.325 - AER (Latvia, 1/2020). TWA: 5 mg/m ³ 8 hours.
Distillates (petroleum), hydrotreated light paraffinic	Ministers Cabinet Regulations Nr.325 - AER (Latvia, 1/2020). TWA: 5 mg/m ³ 8 hours.

Lithuania

Distillates (petroleum), hydrotreated heavy paraffinic	Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2019). TWA: 1 mg/m ³ 8 hours. Form: mist STEL: 3 mg/m ³ 15 minutes. Form: mist
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2019). TWA: 1 mg/m ³ 8 hours. Form: mist STEL: 3 mg/m ³ 15 minutes. Form: mist
Distillates (petroleum), hydrotreated light paraffinic	Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2019). TWA: 1 mg/m ³ 8 hours. Form: mist STEL: 3 mg/m ³ 15 minutes. Form: mist
Distillates (petroleum), hydrotreated light paraffinic	Lithuanian Hygiene Standard HN 23 (Lithuania, 10/2019). TWA: 1 mg/m ³ 8 hours. Form: mist STEL: 3 mg/m ³ 15 minutes. Form: mist

Netherlands

Distillates (petroleum), hydrotreated heavy paraffinic	Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 12/2019). OEL, 8-h TWA: 5 mg/m ³ 8 hours. Form: mist
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 12/2019). OEL, 8-h TWA: 5 mg/m ³ 8 hours. Form: mist
Distillates (petroleum), hydrotreated light paraffinic	Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 12/2019). OEL, 8-h TWA: 5 mg/m ³ 8 hours. Form: mist
Distillates (petroleum), hydrotreated light paraffinic	Ministry of Social Affairs and Employment, Legal limit values (Netherlands, 12/2019). OEL, 8-h TWA: 5 mg/m ³ 8 hours. Form: mist

Norway

Distillates (petroleum), hydrotreated heavy paraffinic	FOR-2011-12-06-1358 (Norway, 9/2018). TWA: 1 mg/m ³ 8 hours. Form: mineral oil particles TWA: 50 mg/m ³ 8 hours. Form: vapor
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	FOR-2011-12-06-1358 (Norway, 9/2018). TWA: 1 mg/m ³ 8 hours. Form: mineral oil particles TWA: 50 mg/m ³ 8 hours. Form: vapor
Distillates (petroleum), hydrotreated light paraffinic	FOR-2011-12-06-1358 (Norway, 9/2018). TWA: 1 mg/m ³ 8 hours. Form: mineral oil particles TWA: 50 mg/m ³ 8 hours. Form: vapor
Distillates (petroleum), hydrotreated light paraffinic	FOR-2011-12-06-1358 (Norway, 9/2018). TWA: 1 mg/m ³ 8 hours. Form: mineral oil particles TWA: 50 mg/m ³ 8 hours. Form: vapor

Poland

Distillates (petroleum), hydrotreated heavy paraffinic	Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (J of Laws 2018, item 1286) (Poland, 7/2018). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (J of Laws 2018, item 1286) (Poland, 7/2018). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction
Distillates (petroleum), hydrotreated light paraffinic	Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (J of Laws 2018, item 1286) (Poland, 7/2018). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction
Distillates (petroleum), hydrotreated light paraffinic	Regulation of the Minister of Family, Labor and Social Policy of 12 June 2018, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (J of Laws 2018, item 1286) (Poland, 7/2018). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction

Portugal

SECTION 8: Exposure controls/personal protection

Distillates (petroleum), hydrotreated heavy paraffinic

Portuguese Institute of Quality (Portugal, 11/2014).

TWA: 5 mg/m³ 8 hours. Form: inhalable fraction

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Portuguese Institute of Quality (Portugal, 11/2014).

TWA: 5 mg/m³ 8 hours. Form: inhalable fraction

Distillates (petroleum), hydrotreated light paraffinic

Portuguese Institute of Quality (Portugal, 11/2014).

TWA: 5 mg/m³ 8 hours. Form: inhalable fraction

Distillates (petroleum), hydrotreated light paraffinic

Portuguese Institute of Quality (Portugal, 11/2014).

TWA: 5 mg/m³ 8 hours. Form: inhalable fraction

Romania

Distillates (petroleum), hydrotreated heavy paraffinic

HG 1218/2006 with subsequent modifications and additions (Romania, 3/2020).

VLA: 5 mg/m³ 8 hours.

Short term: 10 mg/m³ 15 minutes.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

HG 1218/2006 with subsequent modifications and additions (Romania, 3/2020).

VLA: 5 mg/m³ 8 hours.

Short term: 10 mg/m³ 15 minutes.

Distillates (petroleum), hydrotreated light paraffinic

HG 1218/2006 with subsequent modifications and additions (Romania, 3/2020).

VLA: 5 mg/m³ 8 hours.

Short term: 10 mg/m³ 15 minutes.

Distillates (petroleum), hydrotreated light paraffinic

HG 1218/2006 with subsequent modifications and additions (Romania, 3/2020).

VLA: 5 mg/m³ 8 hours.

Short term: 10 mg/m³ 15 minutes.

Russia

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

Ministry of Health and Social Development MAC (Russian Federation, 4/2018). Inhalation sensitizer.

STEL: 0.1 mg/m³ 15 minutes. Form: mixture of vapor and aerosol

Slovakia

Distillates (petroleum), hydrotreated heavy paraffinic

Government regulation SR c. 356/2006 (Slovakia, 2/2018).

TWA: 1 mg/m³, (Mineral oils) 8 hours. Form: liquid aerosol, fumes

TWA: 5 ppm, (Mineral oils) 8 hours. Form: liquid aerosol, fumes

STEL: 3 mg/m³, (Mineral oils) 15 minutes. Form: liquid aerosol, fumes

STEL: 15 ppm, (Mineral oils) 15 minutes. Form: liquid aerosol, fumes

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Government regulation SR c. 356/2006 (Slovakia, 2/2018).

TWA: 1 mg/m³, (Mineral oils) 8 hours. Form: liquid aerosol, fumes

TWA: 5 ppm, (Mineral oils) 8 hours. Form: liquid aerosol, fumes

STEL: 3 mg/m³, (Mineral oils) 15 minutes. Form: liquid aerosol, fumes

STEL: 15 ppm, (Mineral oils) 15 minutes. Form: liquid aerosol, fumes

Distillates (petroleum), hydrotreated light paraffinic

Government regulation SR c. 356/2006 (Slovakia, 2/2018).

TWA: 1 mg/m³, (Mineral oils) 8 hours. Form: liquid aerosol, fumes

TWA: 5 ppm, (Mineral oils) 8 hours. Form: liquid aerosol, fumes

STEL: 3 mg/m³, (Mineral oils) 15 minutes. Form: liquid aerosol, fumes

STEL: 15 ppm, (Mineral oils) 15 minutes. Form: liquid aerosol, fumes

Distillates (petroleum), hydrotreated light paraffinic

Government regulation SR c. 356/2006 (Slovakia, 2/2018).

TWA: 1 mg/m³, (Mineral oils) 8 hours. Form: liquid aerosol, fumes

TWA: 5 ppm, (Mineral oils) 8 hours. Form: liquid aerosol, fumes

STEL: 3 mg/m³, (Mineral oils) 15 minutes. Form: liquid aerosol, fumes

STEL: 15 ppm, (Mineral oils) 15 minutes. Form: liquid aerosol, fumes

Slovenia

Distillates (petroleum), hydrotreated heavy paraffinic

EU OEL (Europe).

TWA: 5 mg/m³ 8 hours.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

EU OEL (Europe).

TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe, 2002).

TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe).

TWA: 5 mg/m³ 8 hours.

Spain

Distillates (petroleum), hydrotreated heavy paraffinic

National institute of occupational safety and health (Spain, 2/2019).

TWA: 5 mg/m³ 8 hours. Form: mist

STEL: 10 mg/m³ 15 minutes. Form: mist

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

National institute of occupational safety and health (Spain, 2/2019).

TWA: 5 mg/m³ 8 hours. Form: mist

STEL: 10 mg/m³ 15 minutes. Form: mist

Distillates (petroleum), hydrotreated light paraffinic

National institute of occupational safety and health (Spain, 2/2019).

TWA: 5 mg/m³ 8 hours. Form: mist

STEL: 10 mg/m³ 15 minutes. Form: mist

Distillates (petroleum), hydrotreated light paraffinic

National institute of occupational safety and health (Spain, 2/2019).

TWA: 5 mg/m³ 8 hours. Form: mist

STEL: 10 mg/m³ 15 minutes. Form: mist

Sweden

Distillates (petroleum), hydrotreated heavy paraffinic

Work environment authority Regulation 2018:1 (Sweden, 2/2018).

TWA: 1 mg/m³ 8 hours. Form: mist and fume

STEL: 3 mg/m³ 15 minutes. Form: mist and fume

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Work environment authority Regulation 2018:1 (Sweden, 2/2018).

TWA: 1 mg/m³ 8 hours. Form: mist and fume

STEL: 3 mg/m³ 15 minutes. Form: mist and fume

Distillates (petroleum), hydrotreated light paraffinic

Work environment authority Regulation 2018:1 (Sweden, 2/2018).

TWA: 1 mg/m³ 8 hours. Form: mist and fume

STEL: 3 mg/m³ 15 minutes. Form: mist and fume

Distillates (petroleum), hydrotreated light paraffinic

Work environment authority Regulation 2018:1 (Sweden, 2/2018).

SECTION 8: Exposure controls/personal protection

TWA: 1 mg/m³ 8 hours. Form: mist and fume
 STEL: 3 mg/m³ 15 minutes. Form: mist and fume

Switzerland

Distillates (petroleum), hydrotreated heavy paraffinic

SUVA (Switzerland, 1/2020).TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

SUVA (Switzerland, 1/2020).TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction

Distillates (petroleum), hydrotreated light paraffinic

SUVA (Switzerland, 1/2020).TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction

Distillates (petroleum), hydrotreated light paraffinic

SUVA (Switzerland, 1/2020).TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction**United Kingdom (UK)**

Distillates (petroleum), hydrotreated heavy paraffinic

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe, 2002).TWA: 5 mg/m³ 8 hours.

Distillates (petroleum), hydrotreated light paraffinic

EU OEL (Europe).TWA: 5 mg/m³ 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived No Effect Level / Predicted No Effect Concentration

If DNEL's or PNEC's are shown, these are for the potential Risk Determining Substances for the product. The specific Risk Determining Substances for the product are listed in the exposure scenarios found in the annex to this Safety Data Sheet.

Derived No Effect Level

Product/ingredient name	Type	Exposure	Value	Population	Effects
dimantine	DNEL	Long term Oral	0.5 mg/kg bw/day	General population [Consumers]	Systemic

Predicted No Effect Concentration

Product/ingredient name	Compartment Detail	Value	Method Detail
dimantine	Fresh water	0.00026 mg/l	-

8.2 Exposure controls

Appropriate engineering controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Hand Protection: Wear chemical resistant gloves. Nitrile gloves of minimum thickness 0.4 mm have an expected breakthrough time of 480 minutes or less when in frequent contact with the product. Due to variable exposure conditions the user must consider that the practical use of a chemical-protective glove in practice may be much shorter than the permeation time above. Manufacturer's directions for use, especially about the minimum thickness and the minimum breakthrough time, must be observed. This information does not replace suitability tests by the end user since glove protection varies depending on the conditions under which the product is used.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s). Seek professional advice prior to respirator selection and use. Select respirator based on suitability to provide adequate worker protection for given working conditions and level of airborne contaminant.

SECTION 8: Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

Physical state : Liquid. [Hazy]
Color : Amber.
Odor : Petroleum.
Odor threshold : Not available.
pH : Not available.
Melting point/freezing point : Not available.
Initial boiling point and boiling range : Not available.
Flash point : Closed cup: 130°C [Minimum Pensky-Martens.]
Evaporation rate : Not available.
Flammability (solid, gas) : Not applicable (liquid).
Upper/lower flammability or explosive limits : Not available.
Vapor pressure : Not available.
Vapor density : Not available.
Relative density : 0.913
Density : 0.912 g/cm³ [15.6°C]
Solubility(ies) : Insoluble in the following materials: cold water.
Partition coefficient: n-octanol/ water : Not available.
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
Viscosity : Kinematic (40°C): 11.95 cm²/s (1195 cSt)
 108 cSt @ 100°C
Explosive properties : Not available.
Oxidizing properties : Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability : Under recommended handling and storage conditions the product is stable.
10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid : High temperatures, sparks and open flames.
10.5 Incompatible materials : Strong oxidizing and reducing agents.
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**

SECTION 11: Toxicological information

Product/ingredient name	Test	Result	Species	Dose	Exposure	Remarks
Short-, medium- and long-chain alkyl methacrylates and short-chain alkyl methacrylamide copolymer Distillates (petroleum), hydrotreated heavy paraffinic	423 Acute Oral toxicity - Acute Toxic Class Method	LD50 Oral	Rat	>2000 mg/kg	-	Based on data for a similar substance.
	403 Acute Inhalation Toxicity	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours	Based on data for a similar substance.
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on data for a similar substance.
	401 Acute Oral Toxicity	LD50 Oral	Rat	>5000 mg/kg	-	Based on data for a similar substance.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	403 Acute Inhalation Toxicity	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours	Based on data for a similar substance.
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on data for a similar substance.
	401 Acute Oral Toxicity	LD50 Oral	Rat	>5000 mg/kg	-	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	403 Acute Inhalation Toxicity	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours	Based on data for a similar substance.
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on data for a similar substance.
	401 Acute Oral Toxicity	LD50 Oral	Rat	>5000 mg/kg	-	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	403 Acute Inhalation Toxicity	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours	Based on data for a similar substance.
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on data for a similar substance.
	401 Acute Oral Toxicity	LD50 Oral	Rat	>5000 mg/kg	-	Based on data for a similar substance.
Long-chain and very long-chain alkenyl succinimide	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>20000 mg/kg	-	-
	401 Acute Oral Toxicity	LD50 Oral	Rat	>14430 mg/kg	-	-
	402 Acute Dermal Toxicity	LD50 Dermal	Rat	>2000 mg/kg	-	-
Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates	401 Acute Oral Toxicity	LD50 Oral	Rat	>5000 mg/kg	-	-
	None available.	LD50 Dermal	Rabbit	8000 mg/kg	-	-
dimantine	401 Acute Oral Toxicity	LD50 Oral	Rat	1230 mg/kg	-	-
methyl-1H-benzotriazole	None available.	LC50 Inhalation Vapor	Rat	>1730 mg/m ³	1 hours	-
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>2000 mg/kg	-	Based on data for a similar substance.
	401 Acute Oral Toxicity	LD50 Oral	Rat	720 mg/kg	-	-
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	401 Acute Oral Toxicity	LD50 Oral	Rat	1265 mg/kg	-	Based on data for a similar substance.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Irritation/Corrosion

SECTION 11: Toxicological information

Product/ingredient name	Test	Species	Result	Remarks
Short-, medium- and long-chain alkyl methacrylates and short-chain alkyl methacrylamide copolymer	None available.	Rabbit	Skin - Not an Irritant	Based on data for a similar substance.
	None available.	Rabbit	Eyes - Irritant	Not H319 at <75%. On basis of test data.
Distillates (petroleum), hydrotreated heavy paraffinic	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not an Irritant	Based on data for a similar substance.
	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	Based on data for a similar substance.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	None available.	Rabbit	Skin - Not an Irritant	Based on data for a similar substance.
	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	None available.	Rabbit	Skin - Not an Irritant	Based on data for a similar substance.
	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	Based on data for a similar substance.
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Mild irritant	Based on data for a similar substance. WOE does not support classification
Distillates (petroleum), hydrotreated light paraffinic	None available.	Rabbit	Skin - Not an Irritant	Based on data for a similar substance.
	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	Based on data for a similar substance.
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Mild irritant	Based on data for a similar substance. WOE does not support classification
Long-chain and very long-chain alkenyl succinimide	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not an Irritant	-
Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Irritant	-
	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Irritant	-
dimantine	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Visible necrosis	Based on data for a similar substance.
methyl-1H-benzotriazole	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not an Irritant	-
	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	-
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Visible necrosis	Based on data for a similar substance.
	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Visible necrosis	Based on data for a similar substance.

Skin : Causes mild skin irritation.

Eyes : Non-irritating to the eyes. Based on test data for this or similar products.

Respiratory : Based on available data, the classification criteria are not met.

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result	Remarks
Short-, medium- and long-chain alkyl methacrylates and short-chain alkyl methacrylamide copolymer	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
Distillates (petroleum), hydrotreated heavy paraffinic	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.

SECTION 11: Toxicological information

Distillates (petroleum), hydrotreated light paraffinic	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
Long-chain and very long-chain alkenyl succinimide	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
methyl-1H-benzotriazole	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Experiment	Result	Remarks
Short-, medium- and long-chain alkyl methacrylates and short-chain alkyl methacrylamide copolymer	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
Long-chain and very long-chain alkenyl succinimide	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
dimantine	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
methyl-1H-benzotriazole	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal	Negative	-
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	473 <i>In vitro</i> Mammalian Chromosomal Aberration	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.

SECTION 11: Toxicological information

	Test			
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Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Product/ingredient name	Test	Species	Exposure	Result	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	451 Carcinogenicity Studies	Mouse	78 weeks	Negative - Dermal - NOAEL	Based on data for a similar substance.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	451 Carcinogenicity Studies	Mouse	78 weeks	Negative - Dermal - TD	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	451 Carcinogenicity Studies	Mouse	78 weeks	Negative - Dermal - NOAEL	Based on data for a similar substance.
dimantine	453 Combined Chronic Toxicity/ Carcinogenicity Studies	Rat	104 weeks; 7 days per week	Negative - Oral - NOAEL	Based on data for a similar substance.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/ingredient name	Test	Route of exposure	Species	Maternal toxicity	Fertility	Development toxin	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Negative	Negative	Negative	Based on data for a similar substance.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	421 Reproduction/ Developmental Toxicity Screening Test	Dermal	Rat	Negative	Negative	Negative	Based on data for a similar substance.
	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Negative	Negative	Negative	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Negative	Negative	Negative	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Negative	Negative	Negative	Based on data for a similar substance.
Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates	422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Positive	Negative	Negative	-
dimantine	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat - Male	Positive	Negative	Negative	Based on data for a similar substance.
methyl-1H-benzotriazole	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Negative	Negative	Negative	Based on data for a similar substance.
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Positive	Negative	Negative	Based on data for a similar substance.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

SECTION 11: Toxicological information

Product/ingredient name	Test	Species	Result	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	414 Prenatal Developmental Toxicity Study	Rat	Negative - Dermal	Based on data for a similar substance.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	414 Prenatal Developmental Toxicity Study	Rat	Negative - Dermal	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	414 Prenatal Developmental Toxicity Study	Rat	Negative - Dermal	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	414 Prenatal Developmental Toxicity Study	Rat	Negative - Dermal	Based on data for a similar substance.
methyl-1H-benzotriazole	414 Prenatal Developmental Toxicity Study	Rat	Positive - Oral	-

Conclusion/Summary : The classification of this product is based on the concentration of the reproductive substance present: methyl-1H-benzotriazole

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
dodecyl methacrylate	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	Category 2	oral	gastrointestinal tract, thymus

Aspiration hazard

Product/ingredient name	Result
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrotreated light paraffinic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure**Short term exposure**

Potential immediate effects : Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.
Ingestion may cause gastrointestinal irritation and diarrhea.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
Potential delayed effects : Not available.

Potential chronic health effects

SECTION 11: Toxicological information

Product/ingredient name	Test	Species	Dose	Exposure	Result	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	125 mg/kg	-	Sub-chronic LOAEL Oral	Based on data for a similar substance.
	411 Subchronic Dermal Toxicity: 90-day Study	Rat	30 mg/kg	-	Sub-chronic NOAEL Dermal	Based on data for a similar substance.
	410 Repeated Dose Dermal Toxicity: 21/28-day Study	Rabbit	1000 mg/kg	-	Sub-acute NOAEL Dermal	Based on data for a similar substance.
	None available.	Rat	0.22 mg/l	4 weeks	Sub-chronic NOAEL Inhalation	Based on data for a similar substance.
	None available.	Rat	0.15 mg/l	13 weeks	Dusts and mists Sub-chronic NOAEL Inhalation	Based on data for a similar substance.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	125 mg/kg	-	Sub-chronic LOAEL Oral	Based on data for a similar substance.
	410 Repeated Dose Dermal Toxicity: 21/28-day Study	Rabbit	1000 mg/kg	-	Sub-acute NOAEL Dermal	Based on data for a similar substance.
	None available.	Rat	0.98 mg/l	4 weeks	Sub-acute NOAEL Inhalation Vapor	Based on data for a similar substance.
	None available.	Rat	0.15 mg/l	13 weeks	Sub-chronic NOAEL Inhalation Vapor	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	125 mg/kg	-	Sub-chronic NOAEL Oral	Based on data for a similar substance.
	411 Subchronic Dermal Toxicity: 90-day Study	Rat	30 mg/kg	-	Sub-chronic NOAEL Dermal	Based on data for a similar substance.
	410 Repeated Dose Dermal Toxicity: 21/28-day Study	Rabbit	1000 mg/kg	-	Sub-acute NOAEL Dermal	Based on data for a similar substance.
	None available.	Rat	0.15 mg/l	13 weeks	Sub-chronic NOAEL Inhalation	Based on data for a similar substance.
	None available.	Rat	0.22 mg/l	4 weeks	Dusts and mists Sub-acute NOAEL Inhalation	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	412 Repeated Dose Inhalation Toxicity: 28-day or 14-day Study	Rat	0.05 mg/l	4 weeks	Sub-acute NOAEL Inhalation	Based on data for a similar substance.
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	125 mg/kg	-	Sub-chronic NOAEL Oral	Based on data for a similar substance.
	411 Subchronic Dermal Toxicity: 90-day Study	Rat	30 mg/kg	-	Sub-chronic NOAEL Dermal	Based on data for a similar substance.
	410 Repeated Dose Dermal Toxicity: 21/28-day Study	Rabbit	1000 mg/kg	-	Sub-acute NOAEL Dermal	Based on data for a similar substance.
	None available.	Rat	0.15 mg/l	13 weeks	Sub-chronic NOAEL Inhalation	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	None available.	Rat	0.22 mg/l	4 weeks	Dusts and mists Sub-acute NOAEL Inhalation	Based on data for a similar substance.

SECTION 11: Toxicological information

Long-chain and very long-chain alkenyl succinimide	412 Repeated Dose Inhalation Toxicity: 28-day or 14-day Study	Rat	0.05 mg/l	4 weeks	Sub-acute NOAEL Inhalation Dusts and mists	-
Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates	407 Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat	1000 mg/kg	-	Sub-acute NOAEL Oral	-
dimantine	422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Rat	10 mg/kg	-	Sub-acute LOAEL Oral	-
methyl-1H-benzotriazole	407 Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat	50 mg/kg	-	Sub-acute NOAEL Oral	Based on data for a similar substance.
	407 Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat	150 mg/kg	-	Sub-acute NOAEL Oral	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure	Remarks
Short-, medium- and long-chain alkyl methacrylates and short-chain alkyl methacrylamide copolymer	Acute EC50 >1000 mg/l	Micro-organism	3 hours	-
	Acute EL50 >100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	Based on data for a similar substance.
	Acute EL50 >100 mg/l	Daphnia - Daphnia magna	48 hours	Based on data for a similar substance.
	Acute LL50 >100 mg/l	Fish - Gobiocypris rarus	96 hours	-
	Chronic EL10 76.6 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	No effects at saturation. Based on data for a similar substance.
Distillates (petroleum), hydrotreated heavy paraffinic	Chronic EL10 >100 mg/l	Daphnia - Daphnia magna	21 days	Based on data for a similar substance.
	Acute EL50 >10000 mg/l	Daphnia - Daphnia magna	48 hours	Based on data for a similar substance.
	Acute LL50 >100 mg/l	Fish - Pimephales promelas	96 hours	Based on data for a similar substance.
	Chronic NOEL ≥100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	Based on data for a similar substance.
	Chronic NOEL 10 mg/l	Daphnia - Daphnia magna	21 days	Based on data for a similar substance.
Lubricating oils (petroleum),	Chronic NOEL 1000 mg/l	Fish - Oncorhynchus mykiss	14 days	QSAR result.
	Acute EL50 >10000	Daphnia - Daphnia magna	48 hours	Based on data for

SECTION 12: Ecological information

C15-30, hydrotreated neutral oil-based	mg/l				a similar substance.
	Acute LL50 >100 mg/l	Fish - Pimephales promelas	96 hours		Based on data for a similar substance.
	Chronic NOEL ≥100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours		Based on data for a similar substance.
	Chronic NOEL 10 mg/l	Daphnia - Daphnia magna	21 days		Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	Chronic NOEL 1000 mg/l	Fish - Oncorhynchus mykiss	14 days		QSAR result.
	Acute EL50 >10000 mg/l	Daphnia - Daphnia magna	48 hours		Based on data for a similar substance.
	Acute LL50 >100 mg/l	Fish - Pimephales promelas	96 hours		Based on data for a similar substance.
	Chronic NOEL ≥100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours		Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	Chronic NOEL 10 mg/l	Daphnia - Daphnia magna	21 days		Based on data for a similar substance.
	Chronic NOEL 1000 mg/l	Fish - Oncorhynchus mykiss	14 days		QSAR result.
	Acute EL50 >10000 mg/l	Daphnia - Daphnia magna	48 hours		Based on data for a similar substance.
	Acute LL50 >100 mg/l	Fish - Pimephales promelas	96 hours		Based on data for a similar substance.
Long-chain and very long-chain alkenyl succinimide	Chronic NOEL ≥100 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours		Based on data for a similar substance.
	Chronic NOEL 10 mg/l	Daphnia - Daphnia magna	21 days		Based on data for a similar substance.
	Chronic NOEL ≥1000 mg/l	Fish - Oncorhynchus mykiss	14 days		-
	Acute EL50 >100 mg/l	Algae - Desmodesmus subspicatus	72 hours		-
Amines, C11-14-branched alkyl, monoheptyl and diheptyl phosphates	Acute EL50 >100 mg/l	Daphnia - Daphnia magna	48 hours		-
	Acute LL50 >100 mg/l	Fish - Oncorhynchus mykiss	96 hours		-
	Chronic NOEL 100 mg/l	Algae - Desmodesmus subspicatus	72 hours		-
	Acute EL50 >10 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours		-
dimantine	Acute EL50 >1 mg/l	Daphnia - Daphnia magna	48 hours		-
	Acute IC50 >100 mg/l	Micro-organism	3 hours		-
	Acute LL50 5.5 mg/l	Fish - Oncorhynchus mykiss	96 hours		-
	Chronic EL10 4.9 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours		-
dimantine	Chronic NOEL >10 mg/l	Daphnia - Daphnia magna	22 days		-
	Acute EC50 0.0165 mg/l	Algae	72 hours		Based on data for a similar substance.
	Acute EL50 0.0558 mg/l	Daphnia - Daphnia magna	48 hours		Based on data for a similar substance.
	Acute EL50 13 mg/l	Micro-organism	3 hours		Based on data for a similar substance.
	Acute LL50 0.26 mg/l	Fish - Danio rerio	96 hours		Based on data for a similar substance.

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methyl-1H-benzotriazole	Chronic EL10 0.00256 mg/l	Algae	72 hours	Based on data for a similar substance.
	Chronic NOEL 0.036 mg/l	Daphnia - Daphnia magna	21 days	Based on data for a similar substance.
	Acute EL50 75 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours	Based on data for a similar substance.
	Acute EL50 8.58 mg/l Fresh water	Daphnia - Daphnia galeata	48 hours	Based on data for a similar substance.
	Acute EL50 1060 mg/l	Micro-organism	24 hours	Based on data for a similar substance.
	Acute LL50 180 mg/l Fresh water	Fish - Danio rerio	96 hours	Based on data for a similar substance.
	Chronic EL10 1.18 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours	Based on data for a similar substance.
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	Chronic EL10 0.4 mg/l Fresh water	Daphnia - Daphnia galeata	21 days	Based on data for a similar substance.
	Acute EC50 0.03 mg/l	Algae - Desmodesmus subspicatus	72 hours	Based on data for a similar substance.
	Acute EC50 0.163 mg/l	Daphnia - Daphnia magna	48 hours	Based on data for a similar substance.
	Acute EC50 48 mg/l	Micro-organism	3 hours	-
	Acute LL50 0.33 mg/l	Fish - Danio rerio	96 hours	-
	Chronic EC10 0.014 mg/l	Algae - Desmodesmus subspicatus	72 hours	Based on data for a similar substance.

Conclusion/Summary : Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Remarks
Short-, medium- and long-chain alkyl methacrylates and short-chain alkyl methacrylamide copolymer	OECD 301F Ready Biodegradability - Manometric Respirometry Test	3.6 % - Not readily - 28 days	-
Distillates (petroleum), hydrotreated heavy paraffinic	OECD 301F Ready Biodegradability - Manometric Respirometry Test	31 % - Not readily - 28 days	Based on data for a similar substance.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	OECD 301F Ready Biodegradability - Manometric Respirometry Test	31 % - Inherent - 28 days	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	OECD 301F Ready Biodegradability - Manometric Respirometry Test	31 % - Not readily - 28 days	Based on data for a similar substance.
Distillates (petroleum), hydrotreated light paraffinic	OECD 301F Ready Biodegradability - Manometric Respirometry Test	31 % - Not readily - 28 days	Based on data for a similar substance.
Long-chain and very long-chain alkenyl succinimide	OECD 301C Ready Biodegradability - Modified MITI Test	26 to 35 % - Not readily - 28 days	-

SECTION 12: Ecological information

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates	(I) OECD 301B Ready Biodegradability - CO ₂ Evolution Test	12 to 13 % - Not readily - 28 days	-
dimantine	OECD 301D Ready Biodegradability - Closed Bottle Test	68 % - Readily - 28 days	-
methyl-1H-benzotriazole	OECD 301F Ready Biodegradability - Manometric Respirometry Test	4 % - Not readily - 28 days	-
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	OECD 301F Ready Biodegradability - Manometric Respirometry Test	<20 % - Not readily - 28 days	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Long-chain and very long-chain alkenyl succinimide	-	17 to 492	low
dimantine	>6.91	-	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.							

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product**

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

European waste catalogue (EWC)

Waste code	Waste designation
13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**EU Regulation (EC) No. 1907/2006 (REACH)Annex XIV - List of substances subject to authorizationAnnex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

International Inventory Status

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Japan	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
United States Active	: All components are active or exempted.
Europe	: This product contains only components that have been either registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No.1907/2006 (REACH) and amendments. A declaration of REACH compliance is available on request. If this product is imported to the EEA as an additive package or component within a finished fluid or fuel, contact Afton to discuss the possibility of setting up an Only Representative agreement (REACH@aftonreach.com).

SECTION 15: Regulatory information**Other EU regulations****Germany**

Storage class (TRGS 510) : 10

Hazard class for water : 2

WGK Notes:

Mass fraction of non-water polluting substances : 0%

Mass fraction of WGK 1 : 97%

Mass fraction of WGK 2 : 3%

Mass fraction of WGK 2 carcinogenic substances ($\geq 0.1\%$) : 0%

Mass fraction of WGK 3 : 0%

Mass fraction of WGK 3 carcinogenic substances ($\geq 0.1\%$) : 0%**15.2 Chemical Safety Assessment** : Complete.

When included, the exposure scenarios were determined based on a review of the risk determining substances and the intended product application. Safe use is demonstrated through using the ATC, ATIEL and Afton systems for Generic Exposure Scenarios for mixtures. Further information on these systems is available by contacting Afton at the email address in section 1.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 vPvB = Very Persistent and Very Bioaccumulative
 WOE = Weight of Evidence

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

Europe

Full text of abbreviated H statements :	H302 H304 H314 H315 H318 H319 H361d H373 H400 H410 H411 H412 H413	Harmful if swallowed. May be fatal if swallowed and enters airways. Causes severe skin burns and eye damage. Causes skin irritation. Causes serious eye damage. Causes serious eye irritation. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects. May cause long lasting harmful effects to aquatic life.
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Full text of classifications [CLP/GHS] :	Acute Tox. 4 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Aquatic Chronic 4 Asp. Tox. 1 Eye Dam. 1 Eye Irrit. 2 Repr. 2 Skin Corr. 1B Skin Corr. 1C Skin Irrit. 2	ACUTE TOXICITY - Category 4 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 4 ASPIRATION HAZARD - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 TOXIC TO REPRODUCTION - Category 2 SKIN CORROSION/IRRITATION - Category 1B SKIN CORROSION/IRRITATION - Category 1C SKIN CORROSION/IRRITATION - Category 2
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SECTION 16: Other information

STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
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Date of issue/ Date of revision : 18 May 2021

Date of previous issue : 1.13

Notice to reader

This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. Afton makes no representation as to completeness or accuracy. In no event will Afton be responsible for damages of any nature whatsoever resulting from the use or reliance upon the information and recommendations.

Identification of the substance or mixture

Product name : HiTEC® 3435A Performance Additive
 Product definition : Mixture

Section 1 Title

Short title of the exposure scenario : Formulation of additive packages, lubricants and greases - Industrial

List of use descriptors : **Identified use name:** Formulation of additive packages, lubricants and greases - Industrial
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC09, PROC15
Substance supplied to that use in form of: In a mixture
Sector of end use: SU03, SU10
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC02
Market sector by type of chemical product: PC24
Article category related to subsequent service life: AC01

Environmental contributing scenarios : **Formulation into mixture - ERC02**

Health Contributing scenarios : **General measures applicable to all activities**
General exposures. Use in contained systems. Elevated temperatures. - PROC02
Mixing operations (closed systems). Batch processes at elevated temperatures. - PROC03
Mixing operations (open systems). Batch processes at elevated temperatures. - PROC04, PROC05
Mixing operations (open systems) - PROC04, PROC05
Process sampling - PROC04, PROC08b
Bulk transfers. Dedicated facility. - PROC08b
Drum/batch transfers. Dedicated facility. - PROC08b
Drum/batch transfers. Non-dedicated facility. - PROC08a
Equipment cleaning and maintenance. - PROC08a, PROC08b
Drum and small package filling - PROC09
Laboratory activities. - PROC15
Storage. - PROC01, PROC02

Processes and activities covered by the exposure scenario : Industrial formulation of lubricant additives, lubricants and greases. Includes material transfers, mixing, large and small scale packing, sampling, maintenance

Section 2.1 Conditions of use affecting exposure. (Workers - Health)

Contributing scenario controlling worker exposure for 0: General measures applicable to all activitiesOperational conditions affecting workers exposure.

Risk management measures : Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.

Contributing scenario controlling worker exposure for 1: General exposures. Use in contained systems. Elevated temperatures.Operational conditions affecting workers exposure.

Risk management measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 2: Mixing operations (closed systems). Batch processes at elevated temperatures.Operational conditions affecting workers exposure.

Risk management measures : Provide extract ventilation to points where emissions occur.

Section 2.1 Conditions of use affecting exposure. (Workers - Health)

Contributing scenario controlling worker exposure for 3: Mixing operations (open systems). Batch processes at elevated temperatures.

Operational conditions affecting workers exposure.

Risk management measures : Provide extract ventilation to points where emissions occur. Avoid carrying out operation for more than 4 hours.

Contributing scenario controlling worker exposure for 4: Mixing operations (open systems)

Operational conditions affecting workers exposure.

Risk management measures : Provide extract ventilation to points where emissions occur.

Contributing scenario controlling worker exposure for 5: Process sampling

Operational conditions affecting workers exposure.

Risk management measures : Avoid carrying out operation for more than 1 hour. Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training.

Contributing scenario controlling worker exposure for 6: Bulk transfers. Dedicated facility.

Operational conditions affecting workers exposure.

Risk management measures : Avoid carrying out operation for more than 4 hours. Wear chemical-resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Contributing scenario controlling worker exposure for 7: Drum/batch transfers. Dedicated facility.

Operational conditions affecting workers exposure.

Risk management measures : Provide extract ventilation to points where emissions occur.

Contributing scenario controlling worker exposure for 8: Drum/batch transfers. Non-dedicated facility.

Operational conditions affecting workers exposure.

Risk management measures : Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Avoid carrying out operation for more than 1 hour. Wear chemical-resistant gloves (tested to EN374) in combination with intensive management supervision controls.

Contributing scenario controlling worker exposure for 9: Equipment cleaning and maintenance.

Operational conditions affecting workers exposure.

Risk management measures : Drain down and flush system prior to equipment break-in or maintenance. Wear chemical-resistant gloves (tested to EN374) in combination with intensive management supervision controls. Retain drain-downs in sealed storage pending disposal or for subsequent recycle. Clear spills immediately.

Contributing scenario controlling worker exposure for 10: Drum and small package filling

Operational conditions affecting workers exposure.

Risk management measures : Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training.

Contributing scenario controlling worker exposure for 11: Laboratory activities.

Operational conditions affecting workers exposure.

Risk management measures : Avoid carrying out operation for more than 4 hours.

Contributing scenario controlling worker exposure for 12: Storage.

Operational conditions affecting workers exposure.

Risk management measures : Store substance within a closed system.

Section 2.2 Conditions of use affecting exposure. (Industrial - Environment)

Contributing scenario controlling environmental exposure for 13: Formulation into mixture

Amounts used : Annual amount used in the EU: 1.00 E+04 Tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of regional tonnage used locally: 0.1

Frequency and duration of use : Emission days: 300 days per year

Other conditions affecting environmental exposure

Section 2.2 Conditions of use affecting exposure. (Industrial - Environment)

- Emission factor (Air, Water, Soil)** :
- Negligible wastewater emissions as process operates without water contact.
 - Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements): 5.00 E-07
 - Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 2.00 E-10
 - Release fraction to soil from process (after typical onsite RMMs): 0

Environmental factors not influenced by risk management measures.

- Other Factors** :
- Local freshwater dilution factor: 10
 - Local marine water dilution factor: 100

Risk management measures

- Technical measures** :
- Treat air emission to provide a typical removal efficiency of 70%
 - Prevent discharge of undissolved substance to or recover from onsite wastewater.
 - User sites are assumed to be provided with oil/water separators and for waste water to be discharged via public sewer system.

- Waste treatment methods** :

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil.

- Organizational measures to prevent/limit release from site** :
- Do not apply industrial sludge to natural soils.
 - Sewage sludge should be incinerated, contained or reclaimed.

Conditions and measures related to external treatment of waste for disposal

- Conditions and measures related to sewage treatment plant** :
- Estimated substance removal from wastewater via on-site sewage treatment 87%
 - Assumed on-site sewage treatment plant flow 2.00 E+03 m³/d
 - Maximum allowable site tonnage (M_{safe}) based on release following total wastewater treatment removal: 6.69 E+05 kg/day
- Disposal Methods** :
- External treatment and disposal of waste should comply with applicable local and/or national regulations.

Section 3 EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Exposure estimation and reference to its source - All Contributing Scenarios

- Assessment method** :
- easyTRA or ECOTOC
- EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE** :
- The risk management measures/operation conditions that are identified in the exposure scenario are the outcome of a quantitative and qualitative assessment that cover the product.

Environmental hazards are possible in cases of inappropriate handling or disposal. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4 Guidance to check compliance with the exposure scenario

Environment:

- Guidance** :
- Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health:

- Guidance** :
- Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Identification of the substance or mixture

Product name : HiTEC® 3435A Performance Additive
 Product definition : Mixture

Section 1 Title

Short title of the exposure scenario : General use of lubricants and greases in vehicles or machinery - Industrial

List of use descriptors : **Identified use name:** General use of lubricants and greases in vehicles or machinery - Industrial
Process Category: PROC01, PROC02, PROC08b, PROC09
Substance supplied to that use in form of: In a mixture
Sector of end use: SU03
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC04, ERC07
Market sector by type of chemical product: PC24
Article category related to subsequent service life: AC01, AC02

Environmental contributing scenarios : **Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - ERC04**
Use of functional fluid industrial site - ERC07

Health Contributing scenarios : **General measures applicable to all activities**
General exposures (closed systems) - PROC01
Initial factory fill of equipment. Use in contained systems. - PROC02, PROC09
Initial factory fill of equipment (open system) - PROC08b
Operation of equipment containing engine oils and similar. Use in contained systems. - PROC01
Equipment cleaning and maintenance. - PROC08b
Equipment cleaning and maintenance. Operation is carried out at elevated temperature (> 20°C above ambient temperature) - PROC08b
Storage - PROC01, PROC02

Processes and activities covered by the exposure scenario : Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

Section 2.1 Conditions of use affecting exposure. (Workers - Health)

Contributing scenario controlling worker exposure for 0: General measures applicable to all activitiesOperational conditions affecting workers exposure.

Risk management measures : Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Avoid direct eye contact with product, also via contamination on hands. Use suitable eye protection.

Contributing scenario controlling worker exposure for 1: General exposures (closed systems)Operational conditions affecting workers exposure.

Risk management measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 2: Initial factory fill of equipment. Use in contained systems.Operational conditions affecting workers exposure.

Risk management measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 3: Initial factory fill of equipment (open system)Operational conditions affecting workers exposure.

Risk management measures : Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Avoid carrying out operation for more than 4 hours.

Section 2.1 Conditions of use affecting exposure. (Workers - Health)

Contributing scenario controlling worker exposure for 4: Operation of equipment containing engine oils and similar. Use in contained systems.

Operational conditions affecting workers exposure.

Risk management measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 5: Equipment cleaning and maintenance.

Operational conditions affecting workers exposure.

Risk management measures : Drain down and flush system prior to equipment break-in or maintenance. Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour). Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Contributing scenario controlling worker exposure for 6: Equipment cleaning and maintenance. Operation is carried out at elevated temperature (> 20°C above ambient temperature)

Operational conditions affecting workers exposure.

Risk management measures : Drain down and flush system prior to equipment break-in or maintenance. Provide extract ventilation to emission points when contact with warm (>50°C) lubricant is likely. Wear chemical-resistant gloves (tested to EN374) in combination with intensive management supervision controls. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Contributing scenario controlling worker exposure for 7: Storage

Operational conditions affecting workers exposure.

Risk management measures : Store substance within a closed system.

Section 2.2 Conditions of use affecting exposure. (Industrial - Environment)

Contributing scenario controlling environmental exposure for 8: Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

Amounts used : Annual amount used in the EU: 2.63 E+03 Tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of regional tonnage used locally: 0.1

Frequency and duration of use : Emission days: 300 days per year

Other conditions affecting environmental exposure

Emission factor (Air, Water, Soil) : Negligible wastewater emissions as process operates without water contact.
Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements): 5.00 E-05
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 2.00 E-11
Release fraction to soil from process (after typical onsite RMMs): 0

Environmental factors not influenced by risk management measures.

Other Factors : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

Technical measures : Prevent discharge of undissolved substance to or recover from onsite wastewater. User sites are assumed to be provided with oil/water separators and for waste water to be discharged via public sewer system.

Waste treatment methods :

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil.

Organizational measures to prevent/limit release from site : Do not apply industrial sludge to natural soils.
Sewage sludge should be incinerated, contained or reclaimed.

Conditions and measures related to external treatment of waste for disposal

Conditions and measures related to sewage treatment plant : Estimated substance removal from wastewater via on-site sewage treatment: 87%
Assumed on-site sewage treatment plant flow: 2.00 E+03 m³/d
Maximum allowable site tonnage (M_{safe}) based on release following total wastewater treatment removal: 1.96 E+04 kg/day

Disposal Methods : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Section 2.2 Conditions of use affecting exposure. (Industrial - Environment)

Contributing scenario controlling environmental exposure for 9: Use of functional fluid industrial site

Amounts used : Annual amount used in the EU: 2.63 E+03 Tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of regional tonnage used locally: 0.1

Frequency and duration of use : Emission days: 300 days per year

Other conditions affecting environmental exposure

Emission factor (Air, Water, Soil) : Negligible wastewater emissions as process operates without water contact.
Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements): 5.00 E-05
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 2.00 E-11
Release fraction to soil from process (after typical onsite RMMs): 0

Environmental factors not influenced by risk management measures.

Other Factors : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

Technical measures : Prevent discharge of undissolved substance to or recover from onsite wastewater. User sites are assumed to be provided with oil/water separators and for waste water to be discharged via public sewer system.

Waste treatment methods :

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil.

Organizational measures to prevent/limit release from site : Do not apply industrial sludge to natural soils.
Sewage sludge should be incinerated, contained or reclaimed.

Conditions and measures related to external treatment of waste for disposal

Conditions and measures related to sewage treatment plant : Estimated substance removal from wastewater via on-site sewage treatment: 87%
Assumed on-site sewage treatment plant flow: 2.00 E+03 m³/d
Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal: 1.96 E+04 kg/day

Disposal Methods : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Section 3 EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Exposure estimation and reference to its source - All Contributing Scenarios

Assessment method : easyTRA or ECOTOC

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE : The risk management measures/operation conditions that are identified in the exposure scenario are the outcome of a quantitative and qualitative assessment that cover the product.

Environmental hazards are possible in cases of inappropriate handling or disposal. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4 Guidance to check compliance with the exposure scenario

Environment:

Guidance : Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health:

Section 4 Guidance to check compliance with the exposure scenario

Guidance

: Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Identification of the substance or mixture

Product name : HiTEC® 3435A Performance Additive
 Product definition : Mixture

Section 1 Title

Short title of the exposure scenario : General use of lubricants and greases in vehicles or machinery - Professional

List of use descriptors : **Identified use name:** General use of lubricants and greases in vehicles or machinery - Professional
Process Category: PROC01, PROC02, PROC08a, PROC08b, PROC20
Substance supplied to that use in form of: In a mixture
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09a, ERC09b
Market sector by type of chemical product: PC24
Article category related to subsequent service life: AC01

Environmental contributing scenarios : **Widespread use of functional fluid (indoor)** - ERC09a
Widespread use of functional fluid (outdoor) - ERC09b

Health Contributing scenarios : **General measures applicable to all activities**
Operation of equipment containing engine oils and similar. Use in contained systems. - PROC01
Material transfers. Non-dedicated facility. - PROC08a
Equipment cleaning and maintenance. Dedicated facility. - PROC08b, PROC20
Storage. - PROC01, PROC02

Processes and activities covered by the exposure scenario : Covers general use of lubricants and greases in vehicles or machinery in closed systems. Includes filling and draining of containers and operation of enclosed machinery (including engines) and associated maintenance and storage activities.

Section 2.1 Conditions of use affecting exposure. (Workers - Health)

Contributing scenario controlling worker exposure for 1: General measures applicable to all activitiesOperational conditions affecting workers exposure.

Risk management measures : Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN 374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent/minimise exposures and to report any skin problems that may develop. Use suitable eye protection. Avoid direct eye contact with product, also via contamination on hands.

Contributing scenario controlling worker exposure for 2: Operation of equipment containing engine oils and similar. Use in contained systems.Operational conditions affecting workers exposure.

Risk management measures : No other specific measures identified.

Contributing scenario controlling worker exposure for 3: Material transfers. Non-dedicated facility.Operational conditions affecting workers exposure.

Risk management measures : Avoid carrying out operation for more than 4 hours. Wear chemical-resistant gloves (tested to EN374) in combination with specific activity training.

Contributing scenario controlling worker exposure for 4: Equipment cleaning and maintenance. Dedicated facility.Operational conditions affecting workers exposure.

Risk management measures : Drain down and flush system prior to equipment break-in or maintenance. Retain drain-downs in sealed storage pending disposal or for subsequent recycle.

Contributing scenario controlling worker exposure for 5: Storage.Operational conditions affecting workers exposure.

Risk management measures : Store substance within a closed system.

Section 2.2 Conditions of use affecting exposure. (Professional - Environment)

Contributing scenario controlling environmental exposure for 0: Widespread use of functional fluid (indoor)

Section 2.2 Conditions of use affecting exposure. (Professional - Environment)

Amounts used : Annual amount used in the EU: 5.39 E+03 Tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of regional tonnage used locally: 0.1

Frequency and duration of use : Emission days: 365 days per year

Other conditions affecting environmental exposure

Emission factor (Air, Water, Soil) : Negligible wastewater emissions as process operates without water contact.
Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements): 1.00 E-04
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 5.00 E-04
Release fraction to soil from process (after typical onsite RMMs): 1.00 E-03

Environmental factors not influenced by risk management measures.

Other Factors : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

Technical measures : Prevent discharge of undissolved substance to or recover from onsite wastewater.

Waste treatment methods :

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil.

Organizational measures to prevent/limit release from site : Do not apply industrial sludge to natural soils.
Sewage sludge should be incinerated, contained or reclaimed.

Conditions and measures related to external treatment of waste for disposal

Conditions and measures related to sewage treatment plant : Estimated substance removal from wastewater via municipal sewage treatment: 87%
Assumed on-site sewage treatment plant flow: 2.00 E+03 m³/d
Maximum allowable site tonnage (M_{safe}) based on release following total wastewater treatment removal: 1.91 E+02 kg/day

Disposal Methods : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling environmental exposure for 6: Widespread use of functional fluid (outdoor)

Amounts used : Annual amount used in the EU: 5.39 E+03 Tonnes/year
Fraction of EU tonnage used in region: 0.1
Fraction of regional tonnage used locally: 0.1

Frequency and duration of use : Emission days: 365 days per year

Other conditions affecting environmental exposure

Emission factor (Air, Water, Soil) : Negligible wastewater emissions as process operates without water contact.
Release fraction to air from process (after typical onsite RMMs consistent with EU Solvent Emissions Directive requirements): 1.00 E-04
Release fraction to wastewater from process (after typical onsite RMMs and before (municipal) sewage treatment plant): 5.00 E-04
Release fraction to soil from process (after typical onsite RMMs): 1.00 E-03

Environmental factors not influenced by risk management measures.

Other Factors : Local freshwater dilution factor: 10
Local marine water dilution factor: 100

Risk management measures

Technical measures : Prevent discharge of undissolved substance to or recover from onsite wastewater.

Waste treatment methods :

Technical onsite conditions and measures to reduce or limit discharges to air, water and soil.

Organizational measures to prevent/limit release from site : Do not apply industrial sludge to natural soils.
Sewage sludge should be incinerated, contained or reclaimed.

Conditions and measures related to external treatment of waste for disposal

Conditions and measures related to sewage treatment plant : Estimated substance removal from wastewater via municipal sewage treatment: 87%
Assumed on-site sewage treatment plant flow: 2.00 E+03 m³/d
Maximum allowable site tonnage (M_{safe}) based on release following total wastewater treatment removal: 1.91 E+02 kg/day

Disposal Methods : External treatment and disposal of waste should comply with applicable local and/or national regulations.

Section 3 EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Exposure estimation and reference to its source - All Contributing Scenarios

Assessment method : easyTRA or ECOTOC

EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE : The risk management measures/operation conditions that are identified in the exposure scenario are the outcome of a quantitative and qualitative assessment that cover the product.

Environmental hazards are possible in cases of inappropriate handling or disposal. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Estimated workplace exposures are not expected to exceed DNELs when the identified risk management measures are adopted. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4 Guidance to check compliance with the exposure scenario

Environment:

Guidance : Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Further details on scaling and control technologies are provided in SPERC factsheet. If scaling reveals a condition of unsafe use (i.e., RCRs > 1), additional RMMs or a site-specific chemical safety assessment is required.

Health:

Guidance : Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.