FLAW DETECTOR PENETRANT 2

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 06/01/2025 Revision date: 21/06/2023 Supersedes version of: 05/01/2023 Version: 2.0

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

1.1. Product identifier

Product name	:	FLAW DETECTOR PENETRANT 2
UFI	:	TJ40-49DF-F00Q-70YX
Product code	:	UDS000722AE
Vaporizer	:	Aerosol

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

Relevant identified uses

Main use category	:	Professional use
Use of the substance/mixture	:	Welding and soldering agents

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol, Category 1	H222;H229
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol. May cause an allergic skin reaction. Causes serious eye damage. May be fatal if swallowed and enters airways. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS05 GHS07

Signal word (CLP) : Danger

Contains	:	N-(2-ethylhexyl)-1-[[3-methyl-4-[(3-methylphenyl)azo]phenyl]azo]naphthalen-2-amine; Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine; Decan-1-ol, ethoxylated ; N-methyl-N-[C18-(unsaturated)alkanoyl]glycine
Hazard statements (CLP)	:	H222 - Extremely flammable aerosol. H229 - Pressurised container: May burst if heated. H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	:	P102 - Keep out of reach of children. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 - Do not spray on an open flame or other ignition source. P251 - Do not pierce or burn, even after use. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor. P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C, 122 °F. P501 - Dispose of contents/container to a hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements	:	EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Petroleum gases, liquefied; Petroleum gas; [A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C3 through C7 and boiling in the range of approximately– 40°C to 80°C (– 40°F to 176°F).] (Propellant gas (Aerosol)) substance with national workplace exposure limit(s) (GB)	CAS-No.: 68476-85-7 EC-No.: 270-704-2 EC Index-No.: 649-202-00-6	50 – 75	Flam. Gas 1, H220 Press. Gas (Comp.), H280
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	EC-No.: 926-141-6 REACH-no: 01-2119456620-43	25 – 50	Asp. Tox. 1, H304 EUH066
Hydrocarbons, C10, aromatics, <1% naphthalene	EC-No.: 918-811-1 REACH-no: 01-2119463583-34	1 – 5	STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
N-(2-ethylhexyl)-1-[[3-methyl-4-[(3-methylphenyl)azo]phenyl]azo]naphthalen-2-amine	CAS-No.: 56358-10-2 EC-No.: 260-125-3 REACH-no: 01-2120767269-40	1 – 5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 4, H413
Decan-1-ol, ethoxylated	CAS-No.: 26183-52-8 EC-No.: 500-046-6	1 – 5	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Eye Dam. 1, H318
Alcohols, C11-15-secondary, ethoxylated	CAS-No.: 68131-40-8 EC-No.: 614-295-4 REACH-no: 01-2119560577-29	< 1	Aquatic Chronic 3, H412
N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	EC-No.: 701-177-3 REACH-no: 01-2119488991-20	< 1	Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine	EC-No.: 939-700-4 REACH-no: 01-2119982395-25	< 0.1	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Product subject to CLP Annex I, item 1.1.3.7. The disclosure rules of the components is modified in this case.
Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If signs/symptoms develop, get medical attention.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. Seek medical attention if irritation develops.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. Seek medical attention if irritation develops.

First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately. Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : May cause an allergic skin reaction. Repeated exposure may cause skin dryness or cracking.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Risk of lung oedema.

4.3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol.
Explosion hazard : Pressurised container: May burst if heated.
Hazardous decomposition products in case of fire : During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Firefighting instructions : Move containers from fire area if it can be done without personal risk. Use standard firefighting procedures and consider the hazards of other involved materials.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment : Wear appropriate protective equipment and clothing during clean-up.
Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate unnecessary personnel. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Following product recovery, flush area with water. Take up small spills with dry chemical absorbent. Clean surface thoroughly to remove residual contamination.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For disposal of contaminated materials refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear personal protective equipment. Avoid prolonged exposure. Handle in accordance with good industrial hygiene and safety procedures.
Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep cool. Keep container closed when not in use.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

Petroleum gases, liquefied; Petroleum gas; [A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C3 through C7 and boiling in the range of approximately– 40°C to 80°C (– 40°F to 176°F).] (68476-85-7)	
United Kingdom - Occupational Exposure Limits	
Local name	Liquefied petroleum gas
WEL TWA (OEL TWA)	1750 mg/m³
	1000 ppm
WEL STEL (OEL STEL)	2180 mg/m³
	1250 ppm
Remark	Carc (Capable of causing cancer and/or heritable genetic damage (only applies if LPG contains more than 0.1% of buta-1,3-diene))
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

DNEL and PNEC

Decan-1-ol, ethoxylated (26183-52-8)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	2080 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	294 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	87 mg/m³
Long-term - systemic effects, dermal	1250 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.292 mg/l
PNEC aqua (marine water)	0.0292 mg/l
PNEC aqua (intermittent, freshwater)	0.0039 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	31.92 mg/kg dwt
PNEC sediment (marine water)	3.19 mg/kg dwt
PNEC (Soil)	
PNEC soil	1 mg/kg dwt

Decan-1-ol, ethoxylated (26183-52-8)	
PNEC (STP)	
PNEC sewage treatment plant	1.4 mg/l

Alcohols, C11-15-secondary, ethoxylated (68131-40-8)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	6 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	42.32 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	21.16 mg/m³
Long-term - systemic effects, dermal	3 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	20 µg/l
PNEC aqua (marine water)	2 µg/l
PNEC aqua (intermittent, freshwater)	15.3 µg/l
PNEC aqua (intermittent, marine water)	1.53 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	28.1 mg/kg dwt
PNEC sediment (marine water)	2.81 mg/kg dwt
PNEC (Soil)	
PNEC soil	5.6 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	22.2 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	8.24 mg/l

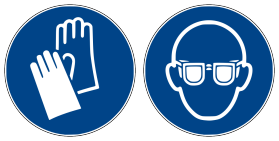
8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protection equipment

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:
Use eye protection according to EN 166. Safety glasses with side shields.

Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Wear suitable gloves tested to EN374. The breakthrough time of the glove should be longer than the total duration of product use. If work lasts longer than the breakthrough time, gloves should be changed part-way through. Nitrile gloves are recommended.

Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Approved organic vapour respirator. Filter type: A

Thermal hazards

Thermal hazard protection:
Not expected to present a significant hazard under anticipated conditions of normal use. Wear appropriate thermal protective clothing, when necessary.

Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Red.
Appearance	:	Propane/butane propelled liquid.
Odour	:	Solvent.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Extremely flammable aerosol.
Explosive properties	:	Pressurised container: May burst if heated.
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	> 62 °C (closed cup)
Auto-ignition temperature	:	> 200 °C
Decomposition temperature	:	Not available
pH	:	Not applicable
Viscosity, kinematic	:	< 10 mm²/s at 40 °C
Solubility	:	Insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	:	Not applicable
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	0.865 g/cm³ at 20 °C
Relative density	:	0.865 at 20 °C
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

Information with regard to physical hazard classes

% of flammable ingredients	:	75 – 100 %

Other safety characteristics

VOC content	:	590 g/l
Additional information	:	For aerosols data for the product without propellant.

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C10, aromatics, <1% naphthalene	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 5000 mg/m³

N-(2-ethylhexyl)-1-[[3-methyl-4-[(3-methylphenyl)azo]phenyl]azo]naphthalen-2-amine (56358-10-2)	
LD50 oral rat	> 2000 mg/kg bodyweight

Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine	
LD50 oral rat	3313 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight

Decan-1-ol, ethoxylated (26183-52-8)	
LD50 dermal rabbit	> 3000 mg/kg bodyweight

Alcohols, C11-15-secondary, ethoxylated (68131-40-8)	
LD50 oral rat	5100 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
LD50 oral	> 5000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
LC50 Inhalation - Rat (Dust/Mist)	> 4950 mg/l

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	
LD50 oral rat	> 5000 mg/kg bodyweight

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: Not applicable

Serious eye damage/irritation : Causes serious eye damage.
pH: Not applicable

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C10, aromatics, <1% naphthalene	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : May be fatal if swallowed and enters airways.

FLAW DETECTOR PENETRANT 2	
Vaporizer	Aerosol
Viscosity, kinematic	< 10 mm²/s at 40 °C

Hydrocarbons, C10, aromatics, <1% naphthalene	
Viscosity, kinematic	1.23 mm²/s

Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine	
Viscosity, kinematic	391.474 mm²/s

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
Viscosity, kinematic	2.4 mm²/s at 20 °C

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	
Viscosity, kinematic	1458.333 mm²/s

11.2. Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

Hydrocarbons, C10, aromatics, <1% naphthalene	
LC50 - Fish [1]	2 – 5 mg/l Oncorhynchus mykiss
EC50 - Crustacea [1]	3 – 10 mg/l Daphnia magna (Water flea)
EC50 72h - Algae [1]	11 mg/l Pseudokirchneriella subcapitata

N-(2-ethylhexyl)-1-[[3-methyl-4-[(3-methylphenyl)azo]phenyl]azo]naphthalen-2-amine (56358-10-2)	
EC50 - Crustacea [1]	> 100 mg/l Daphnia magna (Water flea)
EC50 72h - Algae [1]	> 100 mg/l Desmodesmus subspicatus

Reaction mass of 1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-6-methyl- and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-5-methyl- and N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine and 2H-Benzotriazole-2-methanamine, N,N-bis(2-ethylhexyl)-4-methyl- and N,N-bis(2-ethylhexyl)-5-methyl-1H-benzotriazole-1-methylamine	
LC50 - Fish [1]	1.3 mg/l Danio rerio
EC50 - Crustacea [1]	2.05 mg/l
EC50 72h - Algae [1]	0.976 mg/l Desmodesmus subspicatus
EC50 72h - Algae [2]	0.762 mg/l Desmodesmus subspicatus

Alcohols, C11-15-secondary, ethoxylated (68131-40-8)	
EC50 72h - Algae [1]	> 50 mg/l Selenastrum sp.
NOEC (chronic)	0.2 mg/l (21 d)

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
LC50 - Fish [1]	> 1000 mg/l
EC50 - Other aquatic organisms [1]	> 1000 mg/l waterflea
EC50 - Other aquatic organisms [2]	> 1000 mg/l

N-methyl-N-[C18-(unsaturated)alkanoyl]glycine	
EC50 - Crustacea [1]	0.43 mg/l Daphnia magna

12.2. Persistence and degradability

FLAW DETECTOR PENETRANT 2	
Persistence and degradability	Not established. No data is available on the degradability of this product.

12.3. Bioaccumulative potential

FLAW DETECTOR PENETRANT 2	
Partition coefficient n-octanol/water (Log Kow)	Not applicable

Hydrocarbons, C10, aromatics, <1% naphthalene	
Partition coefficient n-octanol/water (Log Pow)	4

Alcohols, C11-15-secondary, ethoxylated (68131-40-8)	
Partition coefficient n-octanol/water (Log Pow)	2.83

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
Partition coefficient n-octanol/water (Log Pow)	> 3

Petroleum gases, liquefied; Petroleum gas; [A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C3 through C7 and boiling in the range of approximately– 40°C to 80°C (– 40°F to 176°F).] (68476-85-7)	
Partition coefficient n-octanol/water (Log Pow)	2.3

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

FLAW DETECTOR PENETRANT 2	
Results of PBT assessment	Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7. Other adverse effects

Additional information : No other effects known
Global warming potential (GWP) : 1.80 (Fluorinated greenhouse gases - (EC) No 2024/573)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
European List of Waste (LoW, EC 2000/532) : According to the European Waste Catalogue (EWC), Waste Codes are not product specific, but application specific Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1950	UN 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name				
AEROSOLS	AEROSOLS	Aerosols, flammable	AEROSOLS	AEROSOLS
Transport document description				
UN 1950 AEROSOLS, 2.1, (D)	UN 1950 AEROSOLS, 2.1	UN 1950 Aerosols, flammable, 2.1	UN 1950 AEROSOLS, 2.1	UN 1950 AEROSOLS, 2.1
14.3. Transport hazard class(es)				
2.1	2.1	2.1	2.1	2.1
				

ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No EmS-No. (Fire): F-D EmS-No. (Spillage): S-U	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	5F
Special provisions (ADR)	:	190, 327, 344, 625
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E0
Packing instructions (ADR)	:	P207, LP200
Special packing provisions (ADR)	:	PP87, RR6, L2
Mixed packing provisions (ADR)	:	MP9
Transport category (ADR)	:	2
Special provisions for carriage - Packages (ADR)	:	V14
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV9, CV12
Special provisions for carriage - Operation (ADR)	:	S2
Tunnel restriction code (ADR)	:	D

Transport by sea

Special provisions (IMDG)	:	63, 190, 277, 327, 344, 381, 959
Limited quantities (IMDG)	:	SP277
Excepted quantities (IMDG)	:	E0
Packing instructions (IMDG)	:	P207, LP200
Special packing provisions (IMDG)	:	PP87, L2
Stowage category (IMDG)	:	None
Stowage and handling (IMDG)	:	SW1, SW22
Segregation (IMDG)	:	SG69

Air transport

PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	Y203
PCA limited quantity max net quantity (IATA)	:	30kgG
PCA packing instructions (IATA)	:	203
PCA max net quantity (IATA)	:	75kg
CAO packing instructions (IATA)	:	203
CAO max net quantity (IATA)	:	150kg
Special provisions (IATA)	:	A145, A167, A802
ERG code (IATA)	:	10L

Inland waterway transport

Classification code (ADN)	:	5F
Special provisions (ADN)	:	190, 327, 344, 625
Limited quantities (ADN)	:	1 L
Excepted quantities (ADN)	:	E0
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01, VE04
Number of blue cones/lights (ADN)	:	1

Rail transport

Classification code (RID)	:	5F
Special provisions (RID)	:	190, 327, 344, 625
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E0
Packing instructions (RID)	:	P207, LP200
Special packing provisions (RID)	:	PP87, RR6, L2
Mixed packing provisions (RID)	:	MP9
Transport category (RID)	:	2
Special provisions for carriage – Packages (RID)	:	W14
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW9, CW12
Colis express (express parcels) (RID)	:	CE2
Hazard identification number (RID)	:	23

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

VOC Directive (2004/42)

VOC content : 590 g/l

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Gas 1	Flammable gases, Category 1
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
Press. Gas (Comp.)	Gases under pressure : Compressed gas
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis