PLAST CLEAN Q3

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 11/25/2017 Revision date: 11/23/2022 Supersedes version of: 3/13/2018 Version: 2.1

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

1.1. Product identifier

Product form : Mixture
Product name : PLAST CLEAN Q3
UFI : FK98-0030-800Y-534Y
Type of product : Detergent
Product group : Trade product

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : Cleaner

Title	Life cycle stage	Use descriptors
PLAST CLEAN Q3	Professional	PC35, PROC28, ERC4, ERC8a

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

ETP Plastics
Van Rechterenallee 24
7773 AN Hardenberg
The Netherlands
T +31 (0) 523 712 402
info@etpplastics.nl - www.etpplastics.nl

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
Netherlands	Nationaal Vergiftigingen Informatie Centrum (NVIC)	Huispostnummer Q03.2.315 Postbus 85500 3508 GA Utrecht	+31 88 755 80 00	Only for the purpose of informing medical personnel in cases of acute intoxications (24 hours a day, 7 days a week)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (dermal), Category 4	H312
Acute toxicity (inhal.), Category 4	H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Reproductive toxicity, Category 1B	H360
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335

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

Adverse physicochemical, human health and environmental effects

No additional information available.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07 GHS08

Signal word (CLP) : Danger

Contains : 1-methyl-2-pyrrolidone; N, N-dimethylformamide; dimethyl formamide

Hazard statements (CLP) : H312+H332 - Harmful in contact with skin or if inhaled.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H360 - May damage fertility or the unborn child (oral).

Precautionary statements (CLP) : P201 - Obtain special instructions before use.
P261 - Avoid breathing vapours.
P280 - Wear eye protection, protective gloves, protective clothing.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Extra phrases : Restricted to professional users.
For professional users only.

2.3. Other hazards

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

Component	
1-methyl-2-pyrrolidone (872-50-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
N, N-dimethylformamide; dimethyl formamide (68-12-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, 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 is 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 %

Component	
1-methyl-2-pyrrolidone(872-50-4)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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
N, N-dimethylformamide; dimethyl formamide(68-12-2)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is 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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Product name	Product identifier	% w/w (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
1-methyl-2-pyrrolidone substance listed as REACH Candidate (1-Methyl-2-pyrrolidone (NMP)) substance with national workplace exposure limit(s) (NL); substance with a Community workplace exposure limit	CAS-No.: 872-50-4 EC-No.: 212-828-1 EC Index-No.: 606-021-00-7 REACH-no: 01-2119472430-46	50 – 75	Repr. 1B, H360D Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315
N, N-dimethylformamide; dimethyl formamide substance listed as REACH Candidate (N,N-dimethylformamide) substance with national workplace exposure limit(s) (NL); substance with a Community workplace exposure limit	CAS-No.: 68-12-2 EC-No.: 200-679-5 EC Index-No.: 616-001-00-X REACH-no: 01-2119475605-32	20 – 30	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319 Repr. 1B, H360D

Specific concentration limits:

Product name	Product identifier	Specific concentration limits (% w/w (% w/w))
1-methyl-2-pyrrolidone	CAS-No.: 872-50-4 EC-No.: 212-828-1 EC Index-No.: 606-021-00-7 REACH-no: 01-2119472430-46	(10 ≤ C ≤ 100) STOT SE 3, H335

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 : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest. In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects : May damage fertility or the unborn child.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes serious eye irritation.

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

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand. Making extinguishing agents environment-friendly.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Thermal decomposition can lead to the escape of irritating gases and vapours.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin and eyes. Avoid inhalation of vapours.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Keep in suitable, closed containers for disposal. Store away from other materials.

Other information : Disposal must be done according to official regulations.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe vapours, mist. Provide good ventilation in process area to prevent formation of vapour. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well-ventilated place. Containers which are opened should be properly resealed and kept upright to prevent leakage.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

1-methyl-2-pyrrolidone (872-50-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	n-Methyl-2-pyrrolidone
IOEL TWA	40 mg/m³
IOEL STEL	80 mg/m³
IOEL STEL [ppm]	20 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU
EU - Binding Occupational Exposure Limit (BOEL)	
Local name	1-Methyl-2-pyrrolidone
BOEL TWA	40 mg/m³
BOEL TWA [ppm]	10 ppm
BOEL STEL	80 mg/m³
BOEL STEL [ppm]	20 ppm
Notes	Skin (Substantial contribution to the total body burden via dermal exposure possible)
Regulatory reference	DIRECTIVE (EU) 2022/431 (amending Directive 2004/37/EC)
EU - Biological Limit Value (BLV)	
Local name	N-Methyl-2-pyrrolidone
BLV	20 mg/g creatinine Parameter: 2-hydroxy-N-methylsuccinimide - Medium: urine - Sampling time: morning-after-shift ; 18 hours 70 mg/g creatinine Parameter: 5-hydroxy-N-methyl-2-pyrrolidone - Medium: urine - Sampling time: 2-4 hours after the end of exposure/shift
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs
Netherlands - Occupational Exposure Limits	
Local name	N-Methyl-2-pyrrolidon
TGG-8u (OEL TWA)	40 mg/m³
TGG-8u (OEL TWA) [ppm]	10 ppm
TGG-15min (OEL STEL)	80 mg/m³
TGG-15min (OEL STEL) [ppm]	20 ppm
Remark	H (Huidopname) Stoffen die relatief gemakkelijk door de huid kunnen worden opgenomen, hetgeen een substantiële bijdrage kan betekenen aan de totale inwendige blootstelling, hebben in de lijst een H-aanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen.
Regulatory reference	Arbeidsomstandighedenregeling 2023

N, N-dimethylformamide; dimethyl formamide (68-12-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	N,N Dimethylformamide
IOEL TWA	15 mg/m³
IOEL STEL	30 mg/m³
IOEL STEL [ppm]	10 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU

N, N-dimethylformamide; dimethyl formamide (68-12-2)	
EU - Binding Occupational Exposure Limit (BOEL)	
Local name	N,N Dimethylformamide
BOEL TWA	15 mg/m³
BOEL TWA [ppm]	5 ppm
BOEL STEL	30 mg/m³
BOEL STEL [ppm]	10 ppm
Notes	Skin (Substantial contribution to the total body burden via dermal exposure possible)
Regulatory reference	DIRECTIVE (EU) 2022/431 (amending Directive 2004/37/EC)
EU - Biological Limit Value (BLV)	
Local name	N,N-Dimethylformamide
BLV	15 mg/l Parameter: N-methylformamide - Medium: urine - Sampling time: post-shift
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs
Netherlands - Occupational Exposure Limits	
Local name	N,N-Dimethylformamide
TGG-8u (OEL TWA)	15 mg/m³
TGG-8u (OEL TWA) [ppm]	5 ppm
TGG-15min (OEL STEL)	30 mg/m³
TGG-15min (OEL STEL) [ppm]	10 ppm
Remark	H (Huidopname) Stoffen die relatief gemakkelijk door de huid kunnen worden opgenomen, hetgeen een substantiële bijdrage kan betekenen aan de totale inwendige blootstelling, hebben in de lijst een H-aanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen.
Regulatory reference	Arbeidsomstandighedenregeling 2023

8.1.2. Recommended monitoring procedures

No additional information available.

8.1.3. Air contaminants formed

No additional information available.

8.1.4. DNEL and PNEC

1-methyl-2-pyrrolidone (872-50-4)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	208 mg/kg bodyweight/day
Acute - systemic effects, inhalation	80 mg/m³
Long-term - systemic effects, dermal	4.8 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	14.4 mg/m³
Long-term - local effects, inhalation	40 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	125 mg/kg bodyweight/day
Acute - systemic effects, inhalation	80 mg/m³
Acute - systemic effects, oral	26 mg/kg bodyweight/day
Long-term - systemic effects,oral	850 µg/kg dw

1-methyl-2-pyrrolidone (872-50-4)	
Long-term - systemic effects, inhalation	3.6 mg/m³
Long-term - systemic effects, dermal	2.4 mg/kg bodyweight/day
Long-term - local effects, inhalation	4.5 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	250 µg/l
PNEC aqua (marine water)	25 µg/l
PNEC aqua (intermittent, freshwater)	5 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1.09 mg/kg dwt
PNEC sediment (marine water)	109 µg/kg dw
PNEC (Soil)	
PNEC soil	70.1 µg/kg
PNEC (Oral)	
PNEC oral (secondary poisoning)	1.67 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

N, N-dimethylformamide; dimethyl formamide (68-12-2)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	26.3 mg/kg bodyweight/day
Acute - systemic effects, inhalation	30 mg/m³
Acute - local effects, dermal	5.9 mg/cm²
Acute - local effects, inhalation	30 mg/m³
Long-term - systemic effects, dermal	3.31 mg/kg bodyweight/day
Long-term - local effects, dermal	446 µg/cm²
Long-term - systemic effects, inhalation	15 mg/m³
Long-term - local effects, inhalation	15 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, dermal	15.8 mg/kg bodyweight
Acute - systemic effects, inhalation	30 mg/m³
Acute - systemic effects, oral	5.94 mg/kg bodyweight
Acute - local effects, dermal	3.55 mg/cm²
Acute - local effects, inhalation	30 mg/m³
Long-term - systemic effects,oral	1.98 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	15 mg/m³
Long-term - systemic effects, dermal	1.98 mg/kg bodyweight/day
Long-term - local effects, dermal	267 µg/cm²
Long-term - local effects, inhalation	15 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	30 mg/L

N, N-dimethylformamide; dimethyl formamide (68-12-2)	
PNEC aqua (marine water)	3 mg/L
PNEC aqua (intermittent, freshwater)	30 mg/L
PNEC (Sediment)	
PNEC sediment (freshwater)	115.18 mg/kg dwt
PNEC sediment (marine water)	11.52 mg/kg dwt
PNEC (Soil)	
PNEC soil	56.97 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	123 mg/L

8.1.5. Control banding

No additional information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure there is adequate ventilation.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:
Use eye protection according to EN 166, designed to protect liquid splashes. Wear safety glasses with side shields (EN 166)

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing. Recommendation: Boots. Chemical resistant apron. Overall. Standard. EN 13034

Hand protection:
Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): e.g. nitrile rubber (>=0.4 mm), butyl rubber (>=0.7 mm) and others. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves must be replaced after each use and whenever signs of wear or perforation appear

8.2.2.3. Respiratory protection

Respiratory protection:
This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A-P2 according to standard EN 14387) is used

8.2.2.4. Thermal hazards

No additional information available.

8.2.3. Environmental exposure controls

Other information:
Do not eat, drink or smoke during use. Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with skin and eyes. Remove immediately contaminated clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Clear.
Odour	:	Characteristic.
Odour threshold	:	Not available
Melting point	:	< -25 °C
Freezing point	:	Not available
Boiling point	:	> 150 °C
Flammability	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	> 65 °C
Auto-ignition temperature	:	> 350 °C
Decomposition temperature	:	Not available
pH	:	Not applicable
Viscosity, kinematic	:	< 19.417 mm²/s
Viscosity, dynamic	:	< 20 mPa·s (20 °C)
Solubility	:	Water: completely soluble Organic solvent:Dispersible
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	0.07 hPa (20 °C)
Vapour pressure at 50°C	:	Not available
Density	:	1.03 kg/l (20 °C)
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosion limits : 1.3 – 9.5 vol %

9.2.2. Other safety characteristics

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from strong oxidizers. Bases. Acids.

10.5. Incompatible materials

No additional information available.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Harmful if inhaled.

PLAST CLEAN Q3	
ATE dermal	1100 mg/kg bodyweight
ATE gases	4500 ppmv/4h
ATE vapours	11 mg/l/4h
ATE dust/mist	1.5 mg/l/4h

1-methyl-2-pyrrolidone (872-50-4)	
LD50 oral rat	4150 mg/kg
LD50 dermal rat	5000 mg/kg
LC50 Inhalation - Rat	5.1 mg/l/4h
ATE oral	4150 mg/kg bodyweight
ATE dermal	5000 mg/kg bodyweight
ATE vapours	5.1 mg/l/4h
ATE dust/mist	5.1 mg/l/4h

N, N-dimethylformamide; dimethyl formamide (68-12-2)	
LD50 oral rat	3010 mg/kg bodyweight
LD50 dermal rat	> 3160 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	5.85 mg/l/4h
ATE dermal	1100 mg/kg bodyweight
ATE gases	4500 ppmv/4h
ATE vapours	11 mg/l/4h
ATE dust/mist	1.5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
pH: Not applicable

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

Respiratory or skin sensitisation : Not classified
Additional information : Based on available data, the classification criteria are not met
Germ cell mutagenicity : Not classified
Additional information : Based on available data, the classification criteria are not met
Carcinogenicity : Not classified
Additional information : Based on available data, the classification criteria are not met

1-methyl-2-pyrrolidone (872-50-4)	
NOAEL (chronic, oral, animal/male, 2 years)	≈ 89 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information)

1-methyl-2-pyrrolidone (872-50-4)	
NOAEL (chronic, oral, animal/female, 2 years)	≈ 221 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 451 (Carcinogenicity Studies), Guideline: EU Method B.32 (Carcinogenicity Test), Guideline: EPA OTS 798.3300 (Carcinogenicity), Remarks on results: other:Effect type: toxicity (migrated information)

Reproductive toxicity : May damage fertility or the unborn child (oral).

STOT-single exposure : May cause respiratory irritation.

1-methyl-2-pyrrolidone (872-50-4)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

1-methyl-2-pyrrolidone (872-50-4)	
LOAEL (dermal, rat/rabbit, 90 days)	1653 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	1 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (dermal, rat/rabbit, 90 days)	826 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.5 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

N, N-dimethylformamide; dimethyl formamide (68-12-2)	
LOAEL (oral, rat, 90 days)	475 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	238 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents), Remarks on results: not determinable due to absence of adverse toxic effects

Aspiration hazard : Not classified

Additional information : Based on available data, the classification criteria are not met

PLAST CLEAN Q3	
Viscosity, kinematic	< 19.417 mm²/s

1-methyl-2-pyrrolidone (872-50-4)	
Viscosity, kinematic	1.613 mm²/s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available.

11.2.2. Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

1-methyl-2-pyrrolidone (872-50-4)	
LC50 - Fish [1]	500 mg/l (4 days)
EC50 - Crustacea [1]	1.107 g/l (4 days)
EC50 72h - Algae [1]	600.5 mg/l (72 h)
EC50 72h - Algae [2]	> 500 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
LOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	12.5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

N, N-dimethylformamide; dimethyl formamide (68-12-2)	
LC50 - Fish [1]	7.1 g/l (96h)
EC50 - Crustacea [1]	13.1 g/l (48h)
EC50 72h - Algae [1]	1 g/l (72h)
LOEC (chronic)	3000 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	1500 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 102 mg/l Test organisms (species): Oryzias latipes Duration: '21 d'

12.2. Persistence and degradability

No additional information available.

12.3. Bioaccumulative potential

PLAST CLEAN Q3	
Bioaccumulative potential	No bioaccumulation.

1-methyl-2-pyrrolidone (872-50-4)	
Partition coefficient n-octanol/water (Log Pow)	-0.46 @ 25 °C

N, N-dimethylformamide; dimethyl formamide (68-12-2)	
Partition coefficient n-octanol/water (Log Pow)	-0.98 – -0.85 @ 25 °C

12.4. Mobility in soil

No additional information available.

12.5. Results of PBT and vPvB assessment

Component	
1-methyl-2-pyrrolidone (872-50-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
N, N-dimethylformamide; dimethyl formamide (68-12-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

No additional information available.

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Empty containers should be taken for recycle, recovery or waste in accordance with local regulation.

European List of Waste (LoW) code : 20 01 29* - detergents containing dangerous substances
HP Code : HP3 - "Flammable:"
– flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
– flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
– flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
– flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
– water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
– other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.
HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available.				

14.6. Special precautions for user

Overland transport
Not regulated

Transport by sea
Not regulated

Air transport
Not regulated

Inland waterway transport
Not regulated

Rail transport
Not regulated

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
3(a)	N, N-dimethylformamide; dimethyl formamide	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	PLAST CLEAN Q3 ; 1-methyl-2-pyrrolidone ; N, N-dimethylformamide; dimethyl formamide	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
30.	1-methyl-2-pyrrolidone ; N, N-dimethylformamide; dimethyl formamide	Substances which are classified as reproductive toxicant category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 5 or Appendix 6, respectively.
40.	N, N-dimethylformamide; dimethyl formamide	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.
71.	1-methyl-2-pyrrolidone	1-methyl-2-pyrrolidone (NMP)
72.	1-methyl-2-pyrrolidone ; N, N-dimethylformamide; dimethyl formamide	The substances listed in column 1 of the Table in Appendix 12

REACH Annex XIV (Authorisation List)

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

REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations ≥ 0.1 % or SCL: 1-Methyl-2-pyrrolidone (NMP) (EC 212-828-1, CAS 872-50-4), N,N-dimethylformamide (EC 200-679-5, CAS 68-12-2)

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)

Detergent Regulation (648/2004)

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)

15.1.2. National regulations

Netherlands

ABM category	:	Z(2) - biodegradable substances with hazardous properties for humans and the environment (carcinogenicity/ mutagenicity/reprotoxicity/bioacumulative potential or toxicity)
SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	:	1-methyl-2-pyrrolidone,N, N-dimethylformamide; dimethyl formamide are listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
Update.

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
	Version	Modified	
	Revision date	Modified	
	Supersedes	Modified	
	Regulatory framework	Modified	
	1.3. Details of the supplier of the safety data sheet	Modified	
1.1	UFI	Added	

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
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods

Abbreviations and acronyms:	
LC50	Median lethal concentration
LD50	Median lethal dose
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

Data sources : ECHA (European Chemicals Agency). Manufacturer/Supplier.

Other information : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child.
H360D	May damage the unborn child.
Repr. 1B	Reproductive toxicity, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Full text of use descriptors	
ERC4	Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC8a	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
PC35	Washing and cleaning products
PROC28	Manual maintenance (cleaning and repair) of machinery

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Acute Tox. 4 (Dermal)	H312	Calculation method
Acute Tox. 4 (Inhalation)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Repr. 1B	H360	Calculation method
STOT SE 3	H335	Calculation method

The classification complies with : ATP 8

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.