



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Issue date: 11/21/2022 Revision date: 10/23/2024 Supersedes version of: 11/21/2022 Version: 2.0

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

1.1. Product identifier

: Substance
: Clonal (IFF)
: Dodecanenitrile
: 219-440-1
: 2437-25-4
: 23100
: Trade product

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

1.2.1. Relevant identified uses

Intended for general public

Main use category Use of the substance/mixture Professional use,Consumer useFragrance raw material

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

De Hekserij Spoorstraat 57 8271 RG IJsselmuiden Nederland www.hekserij.nl

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture			
Classification according to Regulation (EC) No. 1272/2008 [CLP]			
Skin corrosion/irritation, Category 2	H315		
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400	(M=10)	
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410	(M=10)	
Full text of H- and EUH-statements: see section 16			
Adverse physicochemical, human health and environmental effects			
Causes skin irritation. Very toxic to aquatic life with long lasting effects.			
2.2. Label elements			
Labelling according to Regulation (EC) No. 1272/2008 [CLP]			
Hazard pictograms (CLP) :	!	2	

Signal word (CLP) Hazard statements (CLP) : Warning

GHS07

: H315 - Causes skin irritation.

H410 - Very toxic to aquatic life with long lasting effects.

GHS09

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Precautionary statements (CLP)	: P264 - Wash hands thoroughly after handling.
	P273 - Avoid release to the environment.
	P280 - Wear protective gloves.
	P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
	P332+P313 - If skin irritation occurs: Get medical advice/attention.
	P362+P364 - Take off contaminated clothing and wash it before reuse.
	P391 - Collect spillage.
	P501 - Dispose of contents and container to hazardous or special waste collection point, in
	accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

3.1. Substances			
Substance type	: Mono-constituent		
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Clonal (IFF)	CAS-No.: 2437-25-4 EC-No.: 219-440-1	94 – 100	Skin Irrit. 2, H315 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

3.2. Mixtures

Not applicable

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	 Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
First-aid measures for first aider	: First aid workers will be equipped with suitable personal protective equipment.
4.2. Most important symptoms and ef	ffects, both acute and delayed
Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: None under normal conditions.

Treat symptomatically.

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.

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Unsuitable extinguishing media	: Do not use a heavy water stream.
5.2. Special hazards arising from the subst	ance or mixture
Fire hazard Explosion hazard Hazardous decomposition products in case of fire	 No fire hazard. No direct explosion hazard. Toxic fumes may be released.
5.3. Advice for firefighters	
Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
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	
General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.	
6.1.1. For non-emergency personnel		
Protective equipment	: Wear recommended personal protective equipment.	
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes.	
6.1.2. 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. Stop leak if safe to do so.	
6.2. Environmental precautions		
Avoid release to the environment.		
6.3. Methods and material for containment and cleaning up		
For containment	: Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.	
Methods for cleaning up	: Take up liquid spill into absorbent material.	

: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Other information

For further information refer to section 13.

SECTION 7: Handling and storage		
7.1. Precautions for safe handling		
Additional hazards when processed Precautions for safe handling Hygiene measures	 Not expected to present a significant hazard under anticipated conditions of normal use. Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. 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		
Technical measures Storage conditions Packaging materials	 Keep in a cool, well-ventilated place away from heat. Keep cool. Protect from sunlight. Store always product in container of same material as original container. 	
7.3. Specific end use(s)		

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

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

Clonal (IFF) (2437-25-4)	Clonal (IFF) (2437-25-4)	
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	3.98 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	14 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	1.42 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	2.1 mg/m ³	
Long-term - systemic effects, dermal	1.42 mg/kg bodyweight/day	
PNEC (Water)		
PNEC aqua (freshwater)	1.08 μg/l	
PNEC aqua (marine water)	0.108 μg/l	
PNEC aqua (intermittent, freshwater)	0.59 µg/l	
PNEC aqua (intermittent, marine water)	59 ng/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	0.208 mg/kg dwt	
PNEC sediment (marine water)	20.8 µg/kg dw	
PNEC (Soil)		
PNEC soil	40.9 μg/kg dw	
PNEC (STP)		
PNEC sewage treatment plant	0.00125 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 good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

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Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection: Safety glasses

8.2.2.2. Skin protection

Skin and body protection: Wear suitable protective clothing

Hand protection: Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pН	: 5 – 6.5 Temp.: 25 °C Concentration: 1 vol%
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 4 °C Decomposition: 'no' Sublimation: 'no'
Freezing point	No data available
Boiling point	: 277 °C Decomposition: 'no'
Flash point	: 118 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: No data available
Density	: 0.824 g/cm ³ Type: 'density' Temp.: 20 °C
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: 5.02
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

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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

None under recommended storage and handling conditions (see section 7).

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	ation
11.1 Information on toxicological effect	ts
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	 Not classified Not classified Not classified
Clonal (IFF) (2437-25-4)	
LD50 oral rat	3400 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LC50 Inhalation - Rat	701 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
Skin corrosion/irritation	: Causes skin irritation. pH: 5 – 6.5 Temp.: 25 °C Concentration: 1 vol%
Serious eye damage/irritation	: Not classified pH: 5 – 6.5 Temp.: 25 °C Concentration: 1 vol%
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Clonal (IFF) (2437-25-4)	
NOAEL (oral, rat, 90 days)	567.0369 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: other:
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general Hazardous to the aquatic environment, short–term	: Very toxic to aquatic life with long lasting effects.: Very toxic to aquatic life.
(acute) Hazardous to the aquatic environment, long–term (chronic)	: Very toxic to aquatic life with long lasting effects.

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Clonal (IFF) (2437-25-4)		
LC50 - Fish [1]	0.84 mg/l Test organisms (species): Oryzias latipes	
EC50 - Crustacea [1]	0.059 mg/l Test organisms (species): Daphnia magna	
NOEC (chronic)	0.071 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	
NOEC chronic fish	0.065 mg/l Test organisms (species): other: Duration: '28 d'	
12.2. Persistence and degradability		
Clonal (IFF) (2437-25-4)		
Persistence and degradability	Not rapidly degradable	
12.3. Bioaccumulative potential		
Clonal (IFF) (2437-25-4)		
Partition coefficient n-octanol/water (Log Pow)	5.02	
12.4. Mobility in soil		
No additional information available		
12.5. Results of PBT and vPvB assessment		
No additional information available		
12.6. Other adverse effects		
No additional information available		

SECTION 13: Disposal considerations		
13.1. Waste treatment methods		
Regional waste regulation	: Disposal must be done according to official regulations.	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.	
Sewage disposal recommendations	: Disposal must be done according to official regulations.	
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.	
Additional information	: Do not re-use empty containers.	

SECTION 14: Transport information

ADR	IMDG	ΙΑΤΑ	ADN	RID
4.1. UN number		, ,		
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
4.2. UN proper shippin	g name	· · ·		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clonal (IFF))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clonal (IFF))	Environmentally hazardous substance, liquid, n.o.s. (Clonal (IFF))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clonal (IFF))	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (Clonal (IFF))

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ADR	IMDG	ΙΑΤΑ	ADN	RID
Transport document descrip	otion			
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clonal (IFF)), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clonal (IFF)), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Clonal (IFF)), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clonal (IFF)), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clonal (IFF)), 9, III
14.3. Transport hazard cl	ass(es)			
9	9	9	9	9
14.4. Packing group				
III	III	III	III	III
14.5. Environmental haza	irds	1		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information	available	1	I	I
14.6. Special precautions	for usor			
Overland transportClassification code (ADR):M6Special provisions (ADR):274, 335, 375, 601Limited quantities (ADR):51Excepted quantities (ADR):E1Packing instructions (ADR):PP01, IBC03, LP01, R001Special packing provisions (ADR):MP19Portable tank and bulk container instructions (ADR):T4Portable tank and bulk container special provisions:TP1, TP29(ADR):LGBVVehicle for tank carriage::Special provisions for carriage - Packages (ADR):V12Special provisions for carriage - Loading, unloading:CV13and handling (ADR):90Orange plates:90Junnel restriction code (ADR)::Tunnel restriction code (ADR)::Ununel restriction code (ADR				
Transport by sea Special provisions (IMDG) Limited quantities (IMDG) Excepted quantities (IMDG) Packing instructions (IMDG) Special packing provisions (IMDG) IBC packing instructions (IMDG) Tank instructions (IMDG)	: 5 L : E1 : LP DG) : PF	01, P001 1 C03		

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Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F
Stowage category (IMDG)	: A
Air transport	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197, A215
ERG code (IATA)	: 9L
Inland waterway transport	
Classification code (ADN)	: M6
Special provisions (ADN)	: 274, 335, 375, 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: Т
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0
Rail transport	
Classification code (RID)	: M6
Special provisions (RID)	: 274, 335, 375, 601
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions	: TP1, TP29
(RID)	
Tank codes for RID tanks (RID)	: LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Special provisions for carriage - Loading, unloading	
and handling (RID)	
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 90

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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(b)	Clonal (IFF)	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

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(c)	Clonal (IFF)	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 class 4.1

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

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

Not listed on the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

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

SZW-lijst van kankerverwekkende stoffen	:	The substance is not listed
SZW-lijst van mutagene stoffen	:	The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	:	The substance is not listed
SZW-lijst van reprotoxische stoffen –	:	The substance is not listed
Vruchtbaarheid		
SZW-lijst van reprotoxische stoffen – Ontwikkeling	:	The substance is not listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:		
European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
European Agreement concerning the International Carriage of Dangerous Goods by Road		
Acute Toxicity Estimate		
Bioconcentration factor		
Biological limit value		
Biochemical oxygen demand (BOD)		
Chemical oxygen demand (COD)		
Derived Minimal Effect level		
Derived-No Effect Level		

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Abbreviations and ac	ronyms:
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
ΙΑΤΑ	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
РВТ	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:		
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1	
H315	Causes skin irritation.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	

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.