

SAFETY DATA SHEET

FBM 90 GEL

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

1.1. Product identifier

Trade name

FBM 90 GEL

Product no.

1819

Unique formula identifier (UFI)

NS30-M096-K00K-Q1CC

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

Relevant identified uses of the substance or mixture

Paint Remover

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Trion Tensid AB

Svederusgatan 1-3

SE-75450 Uppsala

Sweden

+46 18 15 61 90

www.trion.se

Contact person

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E-mail

info@trion.se

Revision

12/01/2023

SDS Version

4.0

Date of previous version

30/09/2022 (3.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Acute Tox. 4; H302, Harmful if swallowed.

Skin Irrit. 2; H315, Causes skin irritation.

Eye Irrit. 2; H319, Causes serious eye irritation.

2.2. Label elements

Hazard pictogram(s)



Signal word

Warning

Hazard statement(s)

Harmful if swallowed. (H302)

Causes skin irritation. (H315)

Causes serious eye irritation. (H319)

Safety statement(s)

General

-

Prevention

Wash hands thoroughly after handling. (P264)

Wear eye protection/protective gloves/protective clothing. (P280)

Response

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312)

Rinse mouth. (P330)

If eye irritation persists: Get medical advice/attention. (P337+P313)

Storage

-

▼ Disposal

Dispose of contents/container in accordance with local regulation. (P501)

Hazardous substances

1-butylpyrrolidin-2-one

▼ Additional labelling

UFI: NS30-M096-K00K-Q1CC

2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

This product does not contain any substances considered to be endocrine disruptors 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. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
1-butylpyrrolidin-2-one	CAS No.: 3470-98-2 EC No.: 222-437-8 UK-REACH: Index No.:	80-90%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319	
2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether	CAS No.: 112-34-5 EC No.: 203-961-6 UK-REACH:	<10%	Eye Irrit. 2, H319	[1], [3]

Index No.: 603-096-00-8

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.

[3] According to UK REACH, Annex XVII, the substance is subject to restrictions.

▼ Labelling of contents according to Regulation 1223/2009 on cosmetic products "Ingredients"

Product/substance	1-butylpyrrolidin-2-one
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	300-2000 mg/kg ·
Other information	
Product/substance	1-butylpyrrolidin-2-one
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kg ·
Other information	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	
Species	Rat
Route of exposure	Inhalation
Test	LC50
Result	>29 ppm (2h) ·
Other information	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	2410 mg/kg ·
Other information	

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	2764 mg/kg ·
Other information	

Harmful if swallowed.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

If eye irritation persists: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Nitrogen oxides (NO_x)

Carbon oxides (CO / CO₂)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

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.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Because of the danger of self-ignition, any waste from the product, spray mist and soiled rags etc. are to be kept in a fire-proof place in air-tight containers, alternatively the waste is to be burned.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

4 - 25 Celcius

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. ▼ Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether

Long term exposure limit (8 hours) (ppm): 10

Long term exposure limit (8 hours) (mg/m³): 67,5

Short term exposure limit (15 minutes) (ppm): 15

Short term exposure limit (15 minutes) (mg/m³): 101,2

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
 EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

1-butylpyrrolidin-2-one

Duration	Route of exposure	DNEL
Long term – Systemic effects - General population	Dermal	5 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	10 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	17,4 mg/m ³
Long term – Systemic effects - Workers	Inhalation	70,5 mg/m ³
Long term – Systemic effects - General population	Oral	2,5 mg/kg bw/day
Short term – Systemic effects - General population	Oral	2,5 mg/kg bw/day

2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether

Duration	Route of exposure	DNEL
Long term – Systemic effects - Workers	Dermal	20 mg/kg/day
Long term – Local effects - Workers	Inhalation	67,5 mg/kbm 10 ppm
Long term – Systemic effects - Workers	Inhalation	67,5 mg/kbm 10 ppm
Short term – Local effects - Workers	Inhalation	101,2 mg/kbm

PNEC

1-butylpyrrolidin-2-one

Route of exposure	Duration of Exposure	PNEC
Freshwater	Single	0,8 mg/L
Freshwater sediment	Single	6,336 mg/kg
Marine water	Single	0,08 mg/L
Marine water sediment	Single	06336 mg/kg
Sewage treatment plant	Continuous	30,62 mg/L
Soil	Single	0,7955 mg/kg
Water	Single	1 mg/L

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether

Route of exposure	Duration of Exposure	PNEC
Freshwater	Single	1 mg/L
Freshwater sediment	Single	4,4 mg/kg
Marine water	Single	0,1 mg/L
Marine water sediment	Single	0,44 mg/kg
Sewage treatment plant	Single	200 mg/L
Soil	Single	0,32 mg/kg

8.2. ▼ Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

▼ Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

No specific requirements.

8.3. Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
Respiratory protection is not needed in the event of adequate ventilation	-	-	-

Skin protection

Recommended	Type/Category	Standards
Dedicated work clothing should be worn.	-	-



Hand protection

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile	0,4	>480	EN374-2



Eye protection

Type	Standards
Wear safety glasses with side shields.	EN166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Yellow

Odour / Odour threshold

Solvent

pH

Testing not relevant or not possible due to the nature of the product.

Density (g/cm³)

1.03

Kinematic viscosity

3 - 4 poise cm³/gram

Particle characteristics

Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)

Testing not relevant or not possible due to the nature of the product.

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

Testing not relevant or not possible due to the nature of the product.

Vapour pressure

Testing not relevant or not possible due to the nature of the product.

Relative vapour density

Testing not relevant or not possible due to the nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

Flash point (°C)

108

Auto-Ignition (°C)

No data available

Flammability (°C)

212

Lower and upper explosion limit (% v/v)

Not applicable - based on structure

Solubility

Solubility in water

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Completely soluble

n-octanol/water coefficient

Testing not relevant or not possible due to the nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Other physical and chemical parameters

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	1-butylpyrrolidin-2-one
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	300-2000 mg/kg ·
Other information	
Product/substance	1-butylpyrrolidin-2-one
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	>2000 mg/kg ·
Other information	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Species	Rat
Route of exposure	Inhalation
Test	LC50
Result	>29 ppm (2h) ·
Other information	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	2410 mg/kg ·
Other information	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	
Species	Rabbit
Route of exposure	Dermal
Test	LD50
Result	2764 mg/kg ·
Other information	

Harmful if swallowed.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

None known.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	1-butylpyrrolidin-2-one
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	>100 mg/L ·
Other information	
Product/substance	1-butylpyrrolidin-2-one
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	130 mg/L ·
Other information	
Product/substance	1-butylpyrrolidin-2-one
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	>100 mg/L ·
Other information	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	
Species	Fish
Compartment	

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Duration	96 hours
Test	LC50
Result	1300 mg/l ·
Other information	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	
Species	Daphnia
Compartment	
Duration	72 hours
Test	EC50
Result	>100 mg/l ·
Other information	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	
Species	Algae
Compartment	
Duration	96 hours
Test	EC50
Result	>100 mg/l ·
Other information	

12.2. Persistence and degradability

Product/substance	1-butylpyrrolidin-2-one
Biodegradable	Yes
Test method	
Result	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Biodegradable	Yes
Test method	OECD 301 B
Result	100%

12.3. Bioaccumulative potential

Product/substance	1-butylpyrrolidin-2-one
Test method	
Potential bioaccumulation	No

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

LogPow	No data available.
BCF	No data available.
Other information	
Product/substance	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
Test method	
Potential bioaccumulation	No
LogPow	1,0000
BCF	No data available.
Other information	

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 4 - Irritant (skin irritation and eye damage)

HP 6 - Acute toxicity

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

After dilution with water, small quantities are permitted to go to water treatment plants. Empty packages and product residues must be handled in an environmentally correct manner according to applicable laws and provisions. The company is affiliated to REPA. Do not attempt to refill or clean the package.

EWC code

20 01
13* Solvents

Specific labelling

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, IATA and IMDG.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

Not applicable.

▼ REACH, Annex XVII

2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether is subject to restrictions, UK-REACH annex XVII (entry 55).

Additional information

Not applicable.

Sources

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.

H315, Causes skin irritation.

H319, Causes serious eye irritation.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWG = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

▼ The safety data sheet is validated by

RO

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en