Belyntic

Safety data sheet according to Regulation (EG) No. 1907/2006 (REACH)

Safety Data Sheet

Version 1.0

Date of Issue: 12.03.2019 Valid From: 13.03.2019

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name/Trade Name	:	**PEC-Linker RC+**
CAS-Nr.	:	n.v.
EG-Nr.	:	n.v.
IUPAC	:	2-((2-(2-bis-(tert-butoxycarbonyl)-(aminooxy)acetamido) ethyl)carbamoyl)-4-azido-3-bromobenzyl (4-nitrophenyl) carbonate
Reach Nr.	:	Registration is not required

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

Identified uses	:	Reagent for scientific in vitro research only
Uses advised against	:	Other uses than stated

1.3 Contact of the manufacturer

Company	:	Belyntic GmbH Richard-Willstätter Str. 11 D-12489 Berlin
Telefon	:	+49 30-8104-1113
Email	:	info@belyntic.com

1.4 Emergency telephone number : +49(0)30 30 686700 (Charité Berlin)

Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Acute Toxicity Category 4/Acute Tox. 4; H302-Harmful if swallowed

2.2 Label elements

Pictograms:

Signal Word:
Warning

Hazard Statements
H302 Harmful if swallowed

Precautionary statements

P261 avoid breathing dust/spray
P264 wash hands thoroughly after handling
P280 wear protective gloves/protective clothing/eye protection

2.3 Other hazards
May form explosive dust-air mixture if dispersed
No further hazards known

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
The product does not contain to our current knowledge substances which are PBTs or vPvBs or other substances classified as hazardous which are relevant according Section 3.2 of Regulation (EU) No.2015/830

3.2 Mixtures
The product is a substance

Section 4: FIRST AID MEASURES

4.1 **Description of first aid measures**

General advice
Remove exposed person out of the hazardous area and keep at rest.
Seek medical advice if you feel unwell.

Following Inhalation
Care for fresh air and unrestricted breathing.

Following skin contact
Remove contaminated clothing. Wash immediately with plenty of water and soap.

Following eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion
Do not induce vomiting. Rinse mouth and drink plenty of water.

4.2 **Most important symptoms and effects, both acute and delayed**
n.av.

4.3 **Indication of any immediate medical attention and special treatment needed**
Treat symptomatically. No further relevant information available.

Section 5: FIREFIGHTING MEASURES

5.1 **Extiguishing media**
In case of fire use water spray, foam, dry chemical extinguisher or carbon dioxide
Unsuitable extinguishing agents: High pressure media

5.2 Special hazards arising from the substance or mixture
Ignitable. In case of fire hazardous burning gases/vapours/fumes/mists may be formed, e.g. carbonoxides, nitrogenoxides or sulfuroxides. Do not inhale gas/vapours/fumes/mists.

5.3 **Advice for firefighters**
In case if fire use self-contained breathing apparatus. Wear full firefighting protective clothing.

5.4 **Further advice**
Avoid direct or indirect release of extinguishing water to surface water, ground water, soil or public sewage system. Knock down gases/vapours/fumes/mists with water spray.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment (skin and eye protection; protective clothing). Avoid contact with skin, eyes and clothing as well as inhalation of dust. Ensure adequate ventilation.

6.2 **Environmental precautions**
Avoid direct discharge to sewers and surface waters.

6.3 **Methods and material for containment and cleaning up**
Sweep up and place in a waste disposal container. Dispose material in accordance with applicable local and national regulations.

6.4 **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection.
See Section 13 for information on disposal.

Section 7: HANDLING AND STORAGE

7.1 **Precautionary measures**
Avoid breathing dust. Avoid contact with skin and clothing. Do not get in eyes. Keep container closed. Wear skin and eye protective eqipment.

Special handling advice on general occupational hygiene
Provide good ventilation in working area (hood when working in laboratories; local exhaust ventilation if necessary).

Advice on general occupational hygiene
Do not eat, drink and smoke in work area. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 **Conditions for safe storage, including any incompatibilities**

Storage conditions
Storage temperature: 2-8 °C.
Protect from sunlight and heat.
All local and national regulations should be followed.

Information about storage in one common storage facility
Store in a dry place. Keep container tightly closed. Store away from foodstuffs.

Advice for protection against fire and explosions
Dusts may form explosible mixtures with air.

Incompatibilities
Oxidising chemicals.

7.3 **Specific end use(s)**
No further relevant information available.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **Control parameters**

For this substance there are no specific control parameters (OELs/WELs; BELs, DNELs nor PNECs) established or available.
A general 8 h limit value for 'Dust, inhalable' is established in Austria, Belgium, Denmark, France, Germany, Hungary, Ireland, Singapore, Spain, Sweden, Switzerland of 10 mg/ m^3.
Short-term Limit values in Austria, France, Germany: 20 mg/ m^3.

8.2 **Exposure Controls**

Appropriate engineering controls
Work in a hood. Local exhaust ventilation should be provided to control exposure when handling and processing.

Individual protection measures, such as personal protective equipment

Eye / face protection
Wear protective goggles.

Skin protection
Protective gloves: The glove material has to be impermeable and resistant to the product/ mixture and must satisfy CEN standards (Council directive 89/868/EEC; EN 374).
Suitable materials: Nitril rubber; Butyl rubber(z.B. von KCL-GmbH), thickness: 0,11 mm. Break through time: > 480 min.
Not suitable are gloves (not exhaustive): leather gloves.

Other protection
Wear appropriate protective work clothing. Avoid contamination of skin when taking off the work clothing.

Respiratory protection
When handling according to the intended use no special measures in addition to the recommended engineering controls (see 8.2.1) are necessary. For operations where dust inhalation exposure can occur use an appropriate and approved air purifying respirator.

Thermal hazards
n.a.

Environmental exposure controls
Avoid discharge to sewers and surface waters.

Section 9: Physical und chemical properties

a)	Appearance	
	Aggregate state	solid; powder, particle size < 0,5 mm and > 1 µm
	Color	White-yellowish
b)	Odour	Hardly perceptable
c)	Odour threshold	n.av.
d)	pH-Value (20°C)	n.ap. (very poor water solubility)
e)	Melting / freezing point	≥ 103°C (DSC-test)
f)	Initial boiling point and boiling range	n.ap.
g)	Flash point	n.ap.

h)	Evaporation rate	n.ap.
i)	Flammability (solid, gas)	n.ap.
j)	Upper/lower flamability or explosive limits	n.ap.
k)	Vapour pressure	n.ap.
l)	Vapour density	n.av.
m)	Relative Density	n.av.
n)	Solubilit(ies)	not soluble in water and ethanol; soluble in most polar solvents
o)	Partition coefficient n-Octanol/Wasser	n.av.
p)	Auto-ignition temparature	n.ap.
q)	Decomposition temperature	≥160°C (extrapolated onset temperature; DSC- Test)
r)	Vicsosity	n.ap. (powder)
s)	Explosive properties	not explosive
t)	Oxidising properties	n.ap. (application of tests concerning oxidising properties is not possible since the product is melting and the decomposition temperature is low).

Other information
The substance is not manufactured with respect to production of practical explosive or pyrotechnical effects.
Dusts may form explosible mixtures with air.

Section 10: Stability and Reactivity

10.1 **Reactivity**
Does not react in a hazardous manner when used for the intended use

10.2 **Chemical stability**
Chemically stable. No decomposition if used and stored according to specifications.

10.3 **Possibility of hazardous reactions**
n.ap.

10.4 **Consitions to avoid**
Protect from flames, ignition sources, heat and sunlight.

10.5 **Incompatible materials**
n.ap.

10.6 **Hazardous decomposition products**
n.av.

Section11: TOXICOLOGICAL INFORMATION

11.1 **Information on Toxicological Effects**
The substance has not been tested with respect to toxicological effects.

Acute Toxicity

LD 50 (rat oral): Estimation of the acute oral toxicity via Pro Tox II-Prediction of TOXicity of chemicals: 500 mg kg/BW

LD 50 (rat dermal): n.av.

LC 50 (rat, inhalation): n.av.

Based on available information the classification criteria are met for
Acute Tox. 4; H302

Skin corrosion/irritation: No test data available. With respect to the structure of the substance Skin corrosion is not to be expected.
Classification is not possible due to data lacking.

Serious eye damage/eye irration: n.av.
Classification is not possible due to data lacking.

Respiratory or skin sensitisation
Respiratory sensitisation: n.av.
Skin sensitisation: n.av.
Classification is not possible due to data lacking.

Germ cell mutagenicity: n.av.
Classification is not possible due to data lacking.

Carcinogenicity: n.av.
Classification is not possible due to data lacking.

Reproductive toxicity: n.av.
Classification is not possible due to data lacking.

STOT-single exposure: n.av.
Classification is not possible due to data lacking.

STOT-repeated exposure: n.v.
Classification is not possible due to data lacking.

Aspiration hazard: n.ap. (a solid)

Based on the available information the classification criteria are not met.

Information on likely routes of exposure: Inhalation (dust)

Symptoms related to the physical, chemical and toxicological characteristics: n.av.

Delayed and immediate effects as well as chronic effects from short and long-term exposure: n.av.

Other information: No further relevant information available

Section 12: ECOLOGICAL INFORMATION

12.1 **Toxicity**
The substance has not been tested with respect to ecological information.

Acute aquatic toxicity: n.av.

Chronic aquatic toxicity: n.av.

12.2 **Persistence and degradability**
n.av.

12.3 **Bioaccumulative potential**
n.v.

12.4 **Mobility in soil**
n.av.

12.5 **Results of PBT and vPvB assessment**
Not performed since a chemical safety report is not required

12.6 **Other adverse effects**
n.av.

Classification with respect to Hazardous to the Aquatic Environment is not possible due to data lacking.

Section 13: DISPOSAL CONSIDERATIONS

13.1 **Waste Treatment Methods**
It is encouraged to recycle and reuse the product and packaging, where possible.

Product disposal
When recycle or reuse is not possible, it is recommended that the product be disposed of by thermal treatment or incineration at approved facilities.
All local and national regulations should be followed.
Waste code: 07 07 99 - Wastes from the MSFU from fine chemicals and chemical products not otherwise specified according to Directive 2008/98/EC

Packaging disposal
Handle contaminated packages in the same way as the product itself. Disposal of emptied and cleaned packaging must be made in accordance with applicable local and national regulations.

Disposal-relevant information
Do not release directly or indirectly to surface water, ground water, soil or public sewage system.

Section 14: TRANSPORT INFORMATION

The product is not a dangerous good according to transport regulations

14.1 **UN-Number:** n.ap.
ADR/RID: n.ap. IMDG: n.ap. IATA: n.ap.

14.2 **UN proper shipping name**
ADR/RID: n.ap.
IMDG: n.a.
IATA: n.a.

14.3 **Dangerous good classification**
ADR/RID: n.ap. IMDG: n.ap. IATA: n.ap.

14.4 **Packaging group**
ADR/RID: n.ap. IMDG: n.ap. IATA: n.ap.

14.5 **Environmental hazards**
ADR/RID: n.ap. IMDG: n.ap. IATA: n.ap.
Marine Pollutant: no

14.6 **Special precautions for user**
n.ap.

14.7 **Transport in bulk according to Annex II of MARPOL and the IBC Code**
n.ap.

Section 15: REGULATORY INFORMATION

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

EU: REACH: Regulation (EU) No 1907/2006; CLP Regulation (EU) No.1272/2008; Regulation (EU) No.2015/830 ; Waste Framewok Directive 2008/98/EC

National (Germany):
Water Hazard Class. WGK 3 according to AwSV (self classification)

15.2 **Chemical safety assessment**
not performed since not required

Section 16: OTHER INFORMATION

a) Indication of changes in the SDS: n.ap.

b) Abbreviations and Acronyms

ADR	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
AwSV	Legislation concerning classification of substances into Water Hazard Classes (Germany)
BAM	Bundesanstalt für Materialforschung und Prüfung (Berlin)
CAS	Chemical Abstracts Service
CLP	Regulation (EU) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European norm
Flam. Liq.	Flammable Liquid (code according to CLP)
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Code for Dangerous Goods
Met.Corr.	*Corrosive to metals(code according to CLP)*
IOELV	*Indicative Occupational Exposure Limit Value*
MFSU	*Wastes from the manufacture, formulation, supply and use*
n.ap.	*not applicable*
n.av.	*not available*
OEL	Occupational (workplace) Exposure Limit
PBT	Persistent, Bioaccumulative, Toxic
PNEC	Predicted No Effect Concentration
REACH	Regulation (EU) No 1907/2006

RID	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
SCL	Specific Concentration Limit
Skin Corr.	Skin Corrosion (code according to CLP)
TRGS	Technical Rules for Hazardous Substances (Germany)
VOC	Volatile Organic Compounds
vPvB	very Persistent very Bioaccumulative
VwVwS	Verwaltungsvorschrift wassergefährdender Stoffe
WEL	Workplace Exposure Limit

c) Key literature references and sources for data: DSC-Test (2.23/200918/092)

d) Methods of evaluation for the purpose of classification in case of mixtures: n.ap.

e) List of relevant hazard statements (number and full text)
H302 - Harmful if swallowed

f) Advice on training
The product should only be handled by trained persons. Training as required by national and company rules.