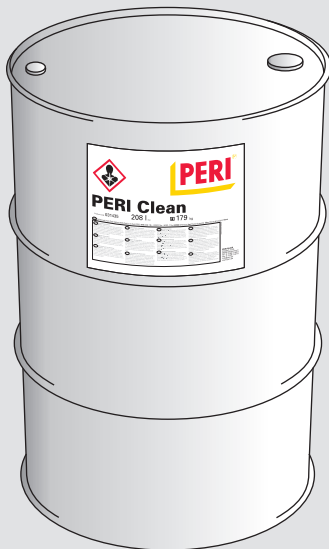


PERI Clean

Concrete release agent

Translation of the Original Instructions for Use



Edition 06 | 2015

PERI

Formwork Scaffolding Engineering

Rudolf-Diesel-Strasse 19

89264 Weissenhorn

Germany

Tel. +49 (0)7309.950-0

Fax +49 (0)7309.951-0

info@peri.com

www.peri.com

Important Notes:

Without exception, all current safety regulations and guidelines must be observed in those countries where our products are used.

The systems or items shown might not be available in every country.

The information contained herein is subject to technical changes in the interests of progress. Errors and typographical mistakes reserved.

Product description:

PERI Clean is a semi-synthetic, non-water miscible universal release agent. Solvent-free. No discolouring of the concrete surface. Economical to use, therefore it is particularly cost-effective. PERI Clean is 57 % biodegradable within 28 days in accordance with OECD Guideline 301 F. Free of waxes and silicones. PERI Clean is suitable for Minergie-Eco (CH). Can be used for standard formwork and construction site equipment.

Typical characteristic values:

Appearance	clear	
Colour	brighter 4.0	DIN ISO 2049
Viscosity/0 °C	mm ² /s 45	DIN 51 562
Viscosity/20 °C	mm ² /s 18	DIN 51 562
Viscosity/40 °C	mm ² /s 9,2	DIN 51 562
Viscosity index	94	DIN ISO 2909
Density/15 °C	kg/m ³ 860	DIN 51 757
Flashpoint (according to Cleveland)	°C > 120	DIN EN ISO 2592
Pour point	°C < -10	DIN ISO 3016
Water contamination	WGK 1	
GISCODE	BTM 10	

Applications:

- For non or less absorbent formlining (formwork panels coated with phenolic resin) as well as all-plastic and plastic-coated formlining.
- prevents rusting of construction equipment and machinery such as concrete mixers and charging buckets.
- ensures prop and spindle threads run smoothly.

Application:

- Working temperature -15 °C up to +80 °C.
- The most important and generally applicable rule:

spread thinly and evenly.

Reference value of the application quantity 20 g / m² (depending on the type of formlining).

Used in excess, this can lead to spotting, powdering and sanding of the concrete surface.

- Apply using PERI high-pressure sprayer and wide-angled nozzle. Always work with high pressure (> 3 bar) in order to ensure even distribution of the release agent. Applying the agent with a brush or simialar means is not to be recommended as the application process will be very uneven.
- Before being used for the first time, spray the sides of the panels when stacked.

BTM-Code:10

- Spray the rear side of the formwork after being installed for the initial use and repeat approx. every 4 weeks.
- Spray immediately after striking as PERI Clean prevents the adhesion of freshly placed concrete to the forming surface and thereby reduces cleaning requirements.
- If used correctly, any subsequent processing of the concrete surfaces through plastering, wallpaper, paint and ceramic is not adversely affected
- In principle, samples are to be taken for all first-time usage.

Delivery form:

PERI Clean is supplied ready-to-use in 20 l plastic canisters or 208 l metal drums.

Storage, transport and identification:

- Storage period: 36 months at 0 °C up to 40 °C. Possible thickening at temperatures below 0° C are reversible.
- It is not a hazardous material as defined in the transport regulations for agriculture (ADR), maritime (IMDG) and air transport ICAO)

Safety instructions and first-aid measures:

See PERI Clean safety data sheet.

Additional important information is available in the safety data sheet in accordance with 91/155/EEC.

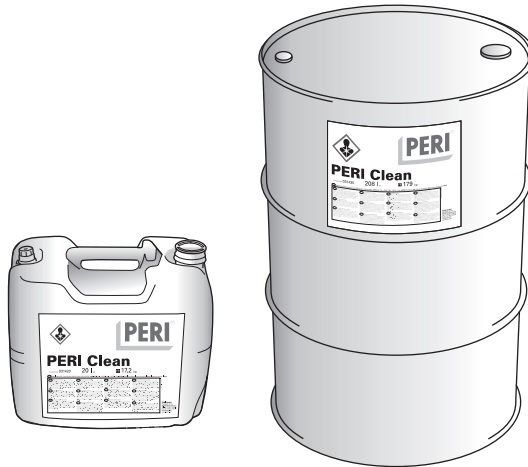
Item no.	Weight kg
031420	0,86
031435	0,86

PERI Clean
PERI Clean, 20 L
PERI Clean, 208 L

Concrete release agent on a semi-synthetic basis. Can be used for standard formwork and construction site equipment. Water Contamination Class 1

Note

Consider PERI Clean safety data sheet!



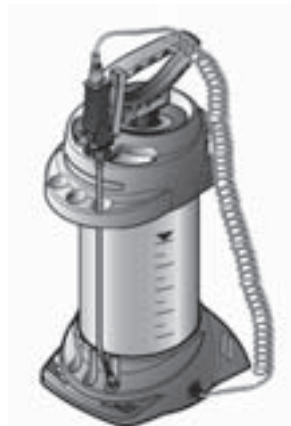
104890	4,700
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Release Agent Pressure Sprayer

For spraying formwork surfaces evenly with PERI Bio Clean, PERI Clean or PERI Plasto Clean.

Complete with

- 1 x 117019 Flat Spray Nozzle
- 1 x 117017 Spiral Hose 2.5 m
- 1 x 117015 Shut-Off Valve
- 1 x 031526 Sealing Kit
- 1 x 117016 Air Pump





Safety Data Sheet

according to Regulation (EC) No 1907/2006

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

1.1. Product identifier

0892PERI208GB PERI CLEAN

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

Use of the substance/mixture

Separating agent

1.3. Details of the supplier of the safety data sheet

Company name:	Zeller+Gmelin GmbH & Co. KG		
Street:	Schlossstraße 20		
Place:	D-73054 Eisligen		
Telephone:	+49 (0) 7161 / 802-0	Telefax:	+49 (0) 7161 / 802-290
e-mail:	info@zeller-gmelin.de		
Contact person:	Uwe Allmendinger	Telephone:	+49 (0) 7161 / 802-297
e-mail:	produktsicherheit@zeller-gmelin.de		
Internet:	www.zeller-gmelin.de		
Responsible Department:	Produktsicherheit / Product Safety		

1.4. Emergency telephone number:

Germany: +49 (0) 7161 / 802-400
In England and Wales: NHS Direct 0845 4647 or 111 In Scotland: NHS 24 - 08454 24 24 24 In Republic of Ireland: 01 809 2166

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

This mixture is not classified as hazardous according to Directive 1999/45/EC.

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

Hazard categories:
Aspiration hazard: Asp. Tox. 1
Hazard Statements:
May be fatal if swallowed and enters airways.

2.2. Label elements

Hazardous components which must be listed on the label

distillates (petroleum), hydrotreated light paraffinic hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, aromatics (2-30%)

Signal word: Danger
Pictograms: GHS08



Hazard statements

H304 May be fatal if swallowed and enters airways.

Precautionary statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.

2.3. Other hazards

Results of PBT and vPvB assessment: not applicable.

SECTION 3: Composition/information on ingredients

3.2. Mixtures



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Chemical characterization
Hydrocarbon-based synthetic oil mixture.

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
265-158-7	distillates (petroleum), hydrotreated light paraffinic	
64742-55-8		
649-468-00-3	Asp. Tox. 1; H304	
01-2119487077-29		
920-360-0	hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, aromatics (2-30%)	10 - < 20 %
	Xn - Harmful R65-66	
	Asp. Tox. 1; H304 EUH066	
01-2119448343-41		

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. If unconscious place in recovery position and seek medical advice. Remove contaminated, saturated clothing immediately.

After inhalation

Remove casualty to fresh air and keep warm and at rest.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Let water be drunken in little sips (dilution effect). Call a physician immediately. Do NOT induce vomiting.

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

When in doubt or if symptoms are observed, get medical advice.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO₂).

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products: Carbon monoxide. Carbon dioxide (CO₂). Do not inhale explosion and combustion gases.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Do not allow to enter into soil/subsoil.



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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Clean contaminated objects and areas thoroughly observing environmental regulations.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use personal protection equipment. Do not eat, drink or smoke when using this product. Provide fresh air. Handle and open container with care. Conditions to avoid: Generation/formation of aerosols.

Advice on protection against fire and explosion

No special measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Protect against: Frost. Keep away from heat. Protect against direct sunlight. Keep container tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls

See chapter 7. No additional measures necessary.

Protective and hygiene measures

When using do not eat, drink, smoke, sniff.

Eye/face protection

Eye glasses with side protection.

Hand protection

Wear suitable gloves. Recommended glove articles: DIN EN 374. Suitable material: NBR (Nitrile rubber). Breakthrough time (maximum wearing time): > 480 min (Thickness of the glove material: 0.4 mm). Breakthrough times and swelling properties of the material must be taken into consideration. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Skin protection

Protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. When splashes or fine mist form, a permitted breathing apparatus suitable for these purposes must be used. Suitable respiratory protection apparatus: Filtering Half-face mask (DIN EN 149), e.g. FFA P / FFP3.

Environmental exposure controls

Do not allow to enter into surface water or drains.



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless-yellowish
Odour:	characteristic

Test method

pH-Value: not applicable

Changes in the physical state

Initial boiling point and boiling range:	not determined
Pour point:	not determined
Flash point:	> 120 °C EN ISO 2592
Lower explosion limits:	0,6 vol. %
Upper explosion limits:	6,5 vol. %
Vapour pressure:	not determined
Density (at 15 °C):	0,88 g/cm ³ DIN 51757
Water solubility:	insoluble
Viscosity / dynamic:	not determined
Viscosity / kinematic: (at 40 °C)	8 mm ² /s DIN 51562
Flow time:	not determined

9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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



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CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
64742-55-8	distillates (petroleum), hydrotreated light paraffinic				
	dermal	LD50 mg/kg	> 5000,0	Rabbit	
	hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, aromatics (2-30%)				
	oral	LD50 mg/kg	>15000,0	Rat	
	dermal	LD50 mg/kg	>2000,0	Rat	

Irritation and corrosivity

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

Sensitising effects

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

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

Aspiration hazard

May be fatal if swallowed and enters airways.

Practical experience

Other observations

Keeping to the general worker's protection rules and the industrial hygienics, there is no risk in handling this product through the personnel.

SECTION 12: Ecological information

12.1. Toxicity

No data available

12.2. Persistence and degradability

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
	hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, aromatics (2-30%)			
	Biodegradation	59,1 %	28	

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, aromatics (2-30%)	>3,50

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. This material and its container must be disposed of



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in a safe way. Waste disposal according to EC directives 75/442/EEC and 91/689/EEC in the corresponding versions, covering waste and dangerous waste.

Waste disposal number of waste from residues/unused products

130207 OIL WASTES AND WASTES OF LIQUID FUELS (except edible oils, and those in chapters 05, 12 and 19); waste engine, gear and lubricating oils; readily biodegradable engine, gear and lubricating oils
Classified as hazardous waste.

Contaminated packaging

Non-contaminated packages may be recycled. Consult the appropriate local waste disposal expert about waste disposal.

SECTION 14: Transport information

Land transport (ADR/RID)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.
- 14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
- 14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- 14.4. Packing group:** No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.
- 14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
- 14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- 14.4. Packing group:** No dangerous good in sense of this transport regulation.

Marine pollutant: NO

Air transport (ICAO)

- 14.1. UN number:** No dangerous good in sense of this transport regulation.
- 14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.
- 14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.
- 14.4. Packing group:** No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No data available

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): 0 %
2004/42/EC (VOC): 0 %

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s):
2,4,5,6,7,8,9,10,11,12,13,14,15.

Relevant R-phrases (Number and full text)

65 Harmful: may cause lung damage if swallowed.



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66 Repeated exposure may cause skin dryness or cracking.

Relevant H- and EUH-phrases (Number and full text)

H304 May be fatal if swallowed and enters airways.

EUH066 Repeated exposure may cause skin dryness or cracking.

Further information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

The optimal System for every Project and every Requirement



Wall Formwork



Column Formwork



Slab Formwork



Climbing Systems



Tunnel Formwork



Bridge Formwork



Shoring Systems



Construction Scaffold



Facade Scaffold



Industrial Scaffold



Access



Protection Scaffold



System-Independent Accessories



Services



PERI GmbH
Formwork Scaffolding Engineering
 Rudolf-Diesel-Strasse 19
 89264 Weissenhorn
 Germany
 Tel. +49 (0)7309.950-0
 Fax +49 (0)7309.951-0
 info@peri.com
 www.peri.com