

Trade name: Teerwäsche A**Product no.:** 391999**Current version :** 1.0.0, issued: 08.10.2020**Replaced version:** 1.0.0, issued: 30.09.2020**Region:** IE**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****Teerwäsche A****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

Cleaner

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet**Address**

Koch-Chemie GmbH

Einsteinstr. 42

D-59423 Unna

Telephone no. +49-2303-9 86 70-0

Fax no. +49-2303-9 86 70-26

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

+353 1 809 2166 (National Poisons Information Centre)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Asp. Tox. 1; H304

Eye Dam. 1; H318

Skin Irrit. 2; H315

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Hazard pictograms**

GHS05



GHS08

Signal word

Danger

Hazardous component(s) to be indicated on label:Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics
2-propylheptane-1-ol, ethoxylated**Hazard statement(s)**

Trade name: Teerwäsche A**Product no.:** 391999**Current version :** 1.0.0, issued: 08.10.2020**Replaced version:** 1.0.0, issued: 30.09.2020**Region:** IE

H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.

Hazard statements (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statement(s)

P280 Wear protective gloves/eye protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P331 Do NOT induce vomiting.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.

2.3 Other hazards

PBT assessment

According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be PBT.

vPvB assessment

According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be vPvB.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable. The product is not a substance.

3.2 Mixtures**Hazardous ingredients**

No	Substance name	Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration %
1	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics		
	- 918-481-9 - 01-2119457273-39	Asp. Tox. 1; H304 EUH066	>= 70,00 - < 90,00 wt%
2	2-butoxyethanol		
	111-76-2 203-905-0 603-014-00-0 01-2119475108-36	Acute Tox. 4; H302 Acute Tox. 4; H312 Acute Tox. 4; H332 Eye Irrit. 2; H319 Skin Irrit. 2; H315	>= 10,00 - < 25,00 wt%
3	2-propylheptane-1-ol, ethoxylated		
	160875-66-1 - - -	Eye Dam. 1; H318 Acute Tox. 4; H302	< 5,00 wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16

SECTION 4: First aid measures**4.1 Description of first aid measures**

Trade name: Teerwäsche A

Product no.: 391999

Current version : 1.0.0, issued: 08.10.2020

Replaced version: 1.0.0, issued: 30.09.2020

Region: IE

General information

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. In case of persisting adverse effects, consult a physician.

After inhalation

Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air.

After skin contact

Wash immediately with plenty of water for several minutes. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get immediate ophthalmic treatment.

After ingestion

Rinse out mouth and give plenty of water to drink. Do not induce vomiting - aspiration hazard. Never give anything by mouth to an unconscious person. Call a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Effects

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray jet; Foam; Carbon dioxide; Dry chemical extinguisher

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear full protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Use personal protective clothing.

For emergency responders

Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

Trade name: Teerwäsche A

Product no.: 391999

Current version : 1.0.0, issued: 08.10.2020

Replaced version: 1.0.0, issued: 30.09.2020

Region: IE

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Advice on safe handling**

Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing. Have emergency shower available. Provide eye wash fountain in work area.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

Storage stability

Value 36 months

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

Incompatible products

Substances to be avoided, see section 10.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limit values**

No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
	2000/39/EC		
	2-Butoxyethanol		
	WEL short-term (15 min reference period)	246	mg/m ³ 50 ppm
	WEL long-term (8-hr TWA reference period)	98	mg/m ³ 20 ppm
	Skin resorption / sensibilisation	Skin	
	List of Chemical Agents and Occupational Exposure Limit Values (Code of Practice)		
	2-Butoxyethanol		
	WEL short-term (15 min reference period)	246	mg/m ³ 50 ppm
	WEL long-term (8-hr TWA reference period)	98	mg/m ³ 20 ppm
	Comments	Sk, IOELV	

DNEL, DMEL and PNEC values**DNEL values (worker)**

No	Substance name	CAS / EC no		
	Route of exposure	Exposure time	Effect	Value
1	2-butoxyethanol			111-76-2 203-905-0
	dermal	Long term (chronic)	systemic	125,00 mg/kg/day
	dermal	Short term (acut)	systemic	89,00 mg/kg/day
	inhalative	Long term (chronic)	systemic	98,00 mg/m ³
	inhalative	Short term (acut)	systemic	1091,00 mg/m ³
	inhalative	Long term (chronic)	local	246,00 mg/m ³

Trade name: Teerwäsche A

Product no.: 391999

Current version : 1.0.0, issued: 08.10.2020

Replaced version: 1.0.0, issued: 30.09.2020

Region: IE

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	2-butoxyethanol			111-76-2 203-905-0	
	oral	Long term (chronic)	systemic	6,30	mg/kg/day
	oral	Short term (acut)	systemic	26,70	mg/kg/day
	dermal	Long term (chronic)	systemic	75,00	mg/kg/day
	dermal	Short term (acut)	systemic	89,00	mg/kg/day
	inhalative	Long term (chronic)	systemic	59,00	mg/m ³
	inhalative	Short term (acut)	systemic	426,00	mg/m ³
	inhalative	Long term (chronic)	local	147,00	mg/m ³

PNEC values

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	2-butoxyethanol		111-76-2 203-905-0	
	water	fresh water	8,80	mg/L
	water	marine water	0,88	mg/L
	water	fresh water sediment	34,60	mg/kg
	with reference to: dry weight			
	water	marine water sediment	3,46	mg/kg
	water	Aqua intermittent	26,4	mg/L
	soil	-	2,33	mg/kg dry weight
	sewage treatment plant	-	463,00	mg/L
	secondary poisoning	-	0,02	g/kg

8.2 Exposure controls**Appropriate engineering controls**

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment**Respiratory protection**

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified. Filter A or environment-independent breathing apparatus.

Eye / face protection

Tightly fitting safety glasses (EN 166).

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material nitrile

Material thickness > 0,3 mm

Breakthrough time > 120 min

Other

Chemical-resistant work clothes.

Environmental exposure controls

No data available.

Trade name: Teerwäsche A

Product no.: 391999

Current version : 1.0.0, issued: 08.10.2020

Replaced version: 1.0.0, issued: 30.09.2020

Region: IE

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Form/Colour			
liquid			
colourless			
Odour			
aromatic			
Odour threshold			
No data available			
pH value			
Not applicable			
Boiling point / boiling range			
No data available			
Melting point / melting range			
No data available			
Decomposition point / decomposition range			
No data available			
Flash point			
Value	>	64	°C
Auto-ignition temperature			
No data available			
Oxidising properties			
not oxidizing			
Explosive properties			
No data available			
Flammability (solid, gas)			
No data available			
Lower flammability or explosive limits			
No data available			
Upper flammability or explosive limits			
No data available			
Vapour pressure			
Value	<	110	kPa
Reference temperature		50	°C
Vapour density			
No data available			
Evaporation rate			
No data available			
Relative density			
No data available			
Density			
Value		0,8	g/cm ³
Reference temperature		20	°C
Solubility in water			
No data available			

Trade name: Teerwäsche A

Product no.: 391999

Current version : 1.0.0, issued: 08.10.2020

Replaced version: 1.0.0, issued: 30.09.2020

Region: IE

Solubility(ies)			
No data available			

Partition coefficient: n-octanol/water			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
log Pow		0,81	
Reference temperature		25 °C	
Source		ECHA	

Viscosity			
Value	<	20,5	mm ² /s
Reference temperature		40	°C
Type	kinematic		

9.2 Other information

Other information	
No data available.	

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources.

10.5 Incompatible materials

strong oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity (result of the ATE calculation for the mixture)	
No	Product Name
1	Teerwäsche A
Comments	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE oral > 2000 mg/kg).

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
LD50		1746 mg/kg bodyweight	
Species	rat		
Method	OECD 401		
Source	ECHA		

Acute dermal toxicity (result of the ATE calculation for the mixture)	
---	--

Trade name: Teerwäsche A

Product no.: 391999

Current version : 1.0.0, issued: 08.10.2020

Replaced version: 1.0.0, issued: 30.09.2020

Region: IE

No	Product Name
1	Teerwäsche A
Comments	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE dermal > 2000 mg/kg).

Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
LD50	>	2000	mg/kg bodyweight
Species	guinea pig		
Method	OECD 402		
Source	ECHA		

Acute inhalational toxicity (result of the ATE calculation for the mixture)	
No	Product Name
1	Teerwäsche A
Comments	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE for inhalation: > 20.000 ppmV (gases), > 20 mg/l (vapours), > 5 mg/l (dusts/mists).

Acute inhalational toxicity			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
ATE		1,5	mg/l
Duration of exposure		4	h
State of aggregation	Dust/mist		
Species	rat		

Skin corrosion/irritation			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
Duration of exposure		4	h
Species	rabbit		
Method	EU B.4		
Source	ECHA		
Evaluation	irritant		

Serious eye damage/irritation			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
Duration of exposure		24	h
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	Irritating to eyes		

Respiratory or skin sensitisation			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation	non-sensitizing		

Trade name: Teerwäsche A

Product no.: 391999

Current version : 1.0.0, issued: 08.10.2020

Replaced version: 1.0.0, issued: 30.09.2020

Region: IE

Germ cell mutagenicity			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
Method		OECD 471	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Reproduction toxicity			
No data available			
Carcinogenicity			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
Species		rat	
Method		OECD 451	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
STOT - single exposure			
No data available			
STOT - repeated exposure			
No data available			
Aspiration hazard			
No data available			

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
LC50		>	1474 mg/l
Duration of exposure			96 h
Species		Oncorhynchus mykiss	
Method		OECD 203	
Source		ECHA	
Toxicity to fish (chronic)			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
NOEC		>	100 mg/l
Duration of exposure			21 day(s)
Species		Danio rerio	
Method		OECD 204	
Source		ECHA	
Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
EC50			1550 mg/l
Duration of exposure			48 h
Species		Daphnia magna	
Method		OECD 202	
Source		ECHA	
Toxicity to Daphnia (chronic)			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0

Trade name: Teerwäsche A**Product no.:** 391999**Current version :** 1.0.0, issued: 08.10.2020**Replaced version:** 1.0.0, issued: 30.09.2020**Region:** IE

NOEC	100	mg/l
Duration of exposure	21	day(s)
Species	Daphnia magna	
Method	OECD 211	
Source	ECHA	

Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
EC50	911	mg/l	
Duration of exposure	72	h	
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

Toxicity to algae (chronic)	
No data available	

Bacteria toxicity	
No data available	

12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
Type	aerobic biodegradation		
Value	90,4	%	
Duration	28	day(s)	
Method	OECD 301 B		
Source	ECHA		
Evaluation	readily biodegradable		

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water			
No	Substance name	CAS no.	EC no.
1	2-butoxyethanol	111-76-2	203-905-0
log Pow	0,81		
Reference temperature	25	°C	
Source	ECHA		

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be PBT.
vPvB assessment	According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be vPvB.

12.6 Other adverse effects

No data available.

12.7 Other information

Trade name: Teerwäsche A**Product no.:** 391999**Current version :** 1.0.0, issued: 08.10.2020**Replaced version:** 1.0.0, issued: 30.09.2020**Region:** IE**Other information**

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility. Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information**14.1 Transport ADR/RID/ADN**

The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG

The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA

The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

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

Not relevant

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No 3

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is not subject to Part 1 or 2 of Annex I.

Trade name: Teerwäsche A**Product no.:** 391999**Current version :** 1.0.0, issued: 08.10.2020**Replaced version:** 1.0.0, issued: 30.09.2020**Region:** IE**Other regulations**

Adhere to the national sanitary and occupational safety regulations when using this product.
Employment restrictions, according to the regulations for protection of expectant and nursing mothers and the youth health and safety regulations, serving to protect against hazardous materials, should be observed.
The surfactants contained in this product comply with the DetVO 648/2004/EC.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information**Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

Creation of the safety data sheet

UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Document protected by copyright. Alterations or reproductions require the express written permission of UMCO GmbH.

Prod-ID 769434