

Safety Data Sheet

according to Regulation (EC) No 1907/2006

ARTUS METALL PROTECT

Revision date: 26.03.2018

Product code: 70047_CLP

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

1.1. Product identifier

ARTUS METALL PROTECT

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

Use of the substance/mixture

Metal care
Reserved for industrial and professional use.

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	DR.SCHNELL GmbH & Co. KGaA	
Street:	Taunusstraße 19	
Place:	D-80807 München	
Telephone:	+49/89/350608-0	Telefax: +49/89/350608-47
e-mail:	info@dr-schnell.de	
Contact person:	Josef Feuerstein	Telephone: +49/89/350608-46
e-mail:	sdb@dr-schnell.de	
Internet:	www.dr-schnell.de	
Responsible Department:	Labor	

1.4. Emergency telephone number:

Emergency CONTACT (24-Hour-Number) international:
GBK GmbH +49 (0) 61 32 - 8 44 63

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Flammable liquid: Flam. Liq. 2
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazard Statements:
Highly flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

2-Propanol

Signal word: Danger

Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

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H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB. In use, may form flammable/explosive vapour-air mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
67-63-0	propan-2-ol			50 - < 55 %
	200-661-7	603-117-00-0		
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
1569-01-3	1-propoxypropan-2-ol			15 - < 20 %
	216-372-4		01-2119474443-37	
	Flam. Liq. 3, Eye Irrit. 2; H226 H319			
111-76-2	2-butoxyethanol			10 - < 15 %
	203-905-0	603-014-00-0	01-2119475108-36	
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H332 H312 H302 H315 H319			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Move victim out of danger zone. Provide fresh air.
In all cases of doubt, or when symptoms persist, seek medical advice.
If unconscious place in recovery position and seek medical advice.

After contact with skin

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.
Remove contact lenses, if present and easy to do. Continue rinsing.
In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.
Call a physician immediately.

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

If applicable, delayed symptoms and effects can be found in section 11. , i.e. under section 4.1 for absorption methods.

The following symptoms may occur:

Headache.

Dizziness.

Impaired coordination

Depression of the central nervous system.

unconsciousness.

With long-term contact:

Prolonged/repetitive skin contact may cause skin defatting or dermatitis.

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

No special measures are necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray. /alcohol resistant foam. / Carbon dioxide (CO2). / Dry extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Oxides of carbon

Pyrolysis products, toxic.

Explosive steam/air combination.

Vapours are heavier than air and will spread at floor level.

Flashback on remote ignition sources is possible when distributing near the ground/floor.

5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

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

Cool compromised containers with water.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition - No smoking.

Provide adequate ventilation.

Avoid contact with eyes and skin.

Avoid breathing dust/fume/gas/mist/vapours/spray.

If necessary Caution, slippery

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).

Do not allow to enter into surface water or drains.

Leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

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.

Can be diluted with water Flush residue with plenty of water.

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6.4. Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

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

In addition to the information contained in this section, relevant information can also be found in sections 8 and 6.1.

Further information on handling

Provide adequate ventilation.
 Avoid breathing dust/fume/gas/mist/vapours/spray.
 Keep away from sources of ignition - No smoking.
 If necessary Take precautionary measures against static discharges.
 If necessary Explosion protection measures necessary.
 Avoid contact with eyes and skin.
 When using do not eat, drink or smoke.
 Observe instructions for use.
 Notice the directions for use on the label.
 Working methods should be applied according to operating instructions.
 General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and after work.
 Keep away from food, drink and animal feedingstuffs.
 Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Store in a place accessible by authorized persons only.
 Store product closed and only in original packing.
 Suitable floor material: Solvent-proof.
 Protect against direct sunlight.
 Store in a well-ventilated place. Keep cool.

Advice on storage compatibility

Do not store together with: Oxidizing. / Spontaneous combustibles.

Further information on storage conditions

To follow: Operating safety directive (BetrSichV).

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
111-76-2	2-Butoxyethanol	25	123		TWA (8 h)	WEL
		50	246		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

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Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
111-76-2	2-Butoxyethanol	butoxyacetic acid	240 mmol/mol	urine	Post shift

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation.
This can be achieved by local exhaust ventilation or general ventilation.
When exceeding the occupational exposure limit (OEL):
Use appropriate respiratory protection.
Applies only if maximum permissible exposure values are listed here.

Protective and hygiene measures

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and after work.
Keep away from food, drink and animal feedingstuffs.
Contaminated work clothing should not be allowed out of the workplace.

Eye/face protection

Tightly sealed safety glasses. (EN 166)

Hand protection

Protective gloves of nitrile (EN 374), Permeation time (penetration time) in minutes: 120
Recommendation: Manufacturer: KCL GmbH, D-36124 Eichenzell, E-mail: vertrieb@kcl.de
Specification No.: 730 Camatril Velours
Hand lotion are recommended.

No tests have been carried out.

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.

Skin protection

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection

When exceeding the occupational exposure limit (OEL): Filter A (EN 14387), brown
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid
Colour: colourless
Odour: characteristic

Test method

pH-Value: 7

Changes in the physical state

Melting point: not determined
Initial boiling point and boiling range: > 80 °C
Flash point: 12 °C

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Flammability

Solid: Yes.
 Gas: Yes.

Explosive properties

The product is: not explosive according to EU A.14
 In use, may form flammable/explosive vapour-air mixture.

Lower explosion limits: 2 vol. % (2-propanol)
 Upper explosion limits: 16,9 vol. % (2-propanol)
 Ignition temperature: not determined

Auto-ignition temperature

Solid: not determined
 Gas: not determined

Oxidizing properties

not determined

Vapour pressure: not determined
 Vapour pressure: not determined
 Density: 1 g/cm³
 Bulk density: not determined
 Water solubility: miscible.

Solubility in other solvents

not determined

Partition coefficient: not determined
 Viscosity / dynamic: not determined
 Viscosity / kinematic: not determined
 Vapour density: not determined
 Solvent content: not determined

9.2. Other information

Mixability: not determined
 Fat solubility (g/l): not determined
 Conductivity: not determined
 Surface tension: not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product has not been tested.

10.2. Chemical stability

Stable with proper storage and handling.

10.3. Possibility of hazardous reactions

No decomposition when used as directed.

10.4. Conditions to avoid

See also section 7.
 Heat, open flames, ignition sources

10.5. Incompatible materials

Avoid contact with strong oxidants

10.6. Hazardous decomposition products

See also section 5.2.

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No decomposition when used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

Possibly more information on health effects, see Section 2.1 (classification).

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-63-0	propan-2-ol				
	oral	LD50 mg/kg	5280	Rat	
	dermal	LD50 mg/kg	12800	Rabbit	
	inhalative (4 h) vapour	LC50	30 mg/l	Rat	
1569-01-3	1-propoxypropan-2-ol				
	oral	LD50 mg/kg	>2000	Rat	
	dermal	LD50 mg/kg	>2000	Rabbit	
111-76-2	2-butoxyethanol				
	oral	LD50 mg/kg	560	Rat	
	dermal	LD50 mg/kg	>2000	Guinea-pig.	
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

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.

STOT-single exposure

May cause drowsiness or dizziness. (propan-2-ol)

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.

SECTION 12: Ecological information

12.1. Toxicity

See section 2.1 (rating) for potentially additional information concerning environmental effects.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
67-63-0	propan-2-ol					
	Acute fish toxicity	LC50 mg/l	9640	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50 mg/l	>1000	72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50 mg/l	13299	48 h	Daphnia magna	
1569-01-3	1-propoxypropan-2-ol					
	Acute fish toxicity	LC50 mg/l	>100	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 mg/l	1466		Grünalge	Pseudokirchneriella
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Großer Wasserfloh	Daphnia magna
111-76-2	2-butoxyethanol					
	Acute fish toxicity	LC50 mg/l	1490	96 h	Lepomis macrochirus (Bluegill)	
	Acute algae toxicity	ErC50	900 mg/l	72 h	Scenedesmus quadricauda	
	Acute crustacea toxicity	EC50 mg/l	1550	48 h	Daphnia magna	

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1569-01-3	1-propoxypropan-2-ol	0,621
111-76-2	2-butoxyethanol	0,81 (25°C)

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**

Dispose of waste according to applicable legislation.

For example: designated incinerator

Waste disposal number of waste from residues/unused products

070604 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; other organic solvents, washing liquids and mother liquors; hazardous waste

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Waste disposal number of contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging

Dispose of waste according to applicable legislation.
Recommendation: Dispose using dual system.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL), MIXTURE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3
 Classification code: F1
 Special Provisions: 601
 Limited quantity: 1 L
 Transport category: 2
 Hazard No: 33
 Tunnel restriction code: D/E

Other applicable information (land transport)

Excepted Quantities: E2

Inland waterways transport (ADN)

14.1. UN number: UN1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL), MIXTURE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3
 Classification code: F1
 Special Provisions: 601
 Limited quantity: 1 L

Other applicable information (inland waterways transport)

Excepted Quantities: E2

Marine transport (IMDG)

14.1. UN number: UN1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL), MIXTURE
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3
 Special Provisions: -
 Limited quantity: 1 L
 EmS: F-E, S-D

Other applicable information (marine transport)

Excepted Quantities: E2

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL), MIXTURE

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14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Special Provisions:	A180
Limited quantity Passenger:	1 L
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

Other applicable information (air transport)

Excepted Quantities: E2

Passenger-LQ: Y341

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Persons responsible for the transport of dangerous goods must be trained.

Security provisions must be observed by all persons involved.

Precautions must be taken to avoid injury

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

Not applicable, as freight is carried as general cargo, not in bulk.

Minimum quantity regulations are not observed here.

Other applicable information

Hazard number and packing code are available on request.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2004/42/EC (VOC): 83 % w/w

Additional information

For classification and labelling, see section 2.

Observe trade association/occupational health regulations.

Observe Chemical Ordinance, ChemO

Observe Chemical Risk Reduction Ordinance, ORRChem

Observe Air Quality Control regulation

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

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

SECTION 16: Other information**Changes**

Revised sections: 1, 7, 16

Abbreviations and acronyms

vPvB = very persistent very bioaccumulative

PBT = persistent bioaccumulative toxic

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

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H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

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.)