

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

Anreissfluid_Marking Fluid

Revision date: 30.03.2023

Product code: 0601-4

Page 1 of 9

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

1.1. Product identifier

Anreissfluid_Marking Fluid

Further trade names

Marking Fluid BLUE, RED and WHITE

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

Use of the substance/mixture

Special finishes.

Restricted to professional users.

1.3. Details of the supplier of the safety data sheet

Company name:	Artur Gloeckler GmbH	
Street:	Poststr.6	
Place:	D-63796 Kahl am Main	
Telephone:	+49 6188 9174 0	Telefax: +49 6188 9174 20
E-mail:	info@gloeckler.com	
Contact person:	Mr Bernhard Schmitt	Telephone: +49 6188 9174 11
E-mail:	sdb@gloeckler.com	
Internet:	www.gloeckler.com	

1.4. Emergency telephone number:

GIZ-Nord, Goettingen, Germany +49 551 19240, information in English available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

UN GHS (ST/SG/AC.10/11/Rev.9)

Flammable liquids: Flam. Liq. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3 (narcotic effects)

2.2. Label elements

UN GHS (ST/SG/AC.10/11/Rev.9)

Hazard components for labelling

propan-2-ol; isopropyl alcohol; isopropanol

butanone; ethyl methyl ketone

Signal word: Danger

Pictograms:



Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements

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

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

Anreissfluid_Marking Fluid

Revision date: 30.03.2023

Product code: 0601-4

Page 2 of 9

P243	Take action to prevent static discharges.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.
P337+P313	If eye irritation persists: Get medical advice/attention.
P233	Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Contains: Alcohol, Ethyl methyl ketone, resin, Colourants

Relevant ingredients

CAS No	Chemical name	Quantity
	Classification (UN GHS (ST/SG/AC.10/11/Rev.9))	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	50 - < 55 %
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
78-93-3	butanone; ethyl methyl ketone	35 - < 40 %
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	

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.

After inhalation

Provide fresh air. If victim is at risk of losing consciousness, position and transport on their side. In case of respiratory tract irritation, consult a physician.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin reactions, consult a physician.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink 1 glass of water. Call a doctor if you feel unwell.

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

Causes serious eye irritation. Vapours may cause drowsiness and dizziness.

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

Treat symptomatically.

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

Anreissfluid_Marking Fluid

Revision date: 30.03.2023

Product code: 0601-4

Page 3 of 9

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂). Foam. Extinguishing powder.
Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

D-powder, High power water jet.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air.
In case of fire may be liberated: Pyrolysis products, toxic.

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition. Provide adequate ventilation.
Avoid contact with skin, eyes and clothes. Do not breathe gas/fumes/vapour/spray.

For non-emergency personnel

Wear personal protection equipment. Remove persons to safety.

For emergency responders

Wear personal protection equipment (refer to section 8).

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Vapours may form explosive mixtures with air.

6.3. Methods and material for containment and cleaning up

For containment

Stop leak if safe to do so. Cover drains.

For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area. Collect in closed and suitable containers for disposal.

Other information

Use non-sparking tools. Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide adequate ventilation.
Avoid contact with skin, eyes and clothes. Do not breathe gas/fumes/vapour/spray.
Wear personal protection equipment.

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

Anreissfluid_Marking Fluid

Revision date: 30.03.2023

Product code: 0601-4

Page 4 of 9

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.

Hints on joint storage

Do not store together with: Oxidising agent, Pyrophoric or self-heating substances.

Further information on storage conditions

Protect against: Heat, UV-radiation/sunlight

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

8.2. Exposure controls



Appropriate engineering controls

Work in well-ventilated zones or use proper respiratory protection.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tightly sealed safety glasses. (EN 166)

Hand protection

Tested protective gloves are to be worn: EN ISO 374

In case of prolonged or frequently repeated skin contact: Suitable material: NBR (Nitrile rubber). Thickness of glove material: 0,4 mm, penetration time (maximum wearing period): > 480 min

On short hand contact: Hand protection: CR (polychloroprenes, Chloroprene rubber). Thickness of glove material: 0,65 mm. penetration time (maximum wearing period): >120 min

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

Anreissfluid_Marking Fluid

Revision date: 30.03.2023

Product code: 0601-4

Page 5 of 9

recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protect skin by using skin protective cream.

Skin protection

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes). Wear anti-static footwear and clothing

Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values, insufficient ventilation. Filtering device (full mask or mouthpiece) with filter: A

Thermal hazards

Flame-retardant protective clothing

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	pigmented
Odour:	like: Alcohol
Odour threshold:	not determined
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	approx. 80 °C
Flammability:	Highly flammable liquid and vapour.
Lower explosion limits:	1,5 g/m ³
Upper explosion limits:	12 g/m ³
Flash point:	12 °C
Auto-ignition temperature:	approx. 420 °C
Decomposition temperature:	not determined
pH-Value:	not applicable
Viscosity / kinematic:	not determined
Water solubility:	insoluble
Solubility in other solvents	
Soluble in: Alcohol, Ketone, mixable with most organic solvent cleaners	
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	48 hPa
(at 20 °C)	
Vapour pressure:	236 hPa
(at 50 °C)	
Density:	approx. 0,8 g/cm ³
Relative vapour density:	not determined
Particle characteristics:	not relevant

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

Vapours can form explosive mixtures with air.

Other safety characteristics

Solvent content: approx. 85%

Further Information

VOC/CH: 343 g/500 ml

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

Anreissfluid_Marking Fluid

Revision date: 30.03.2023

Product code: 0601-4

Page 6 of 9

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

Violent reaction with: Oxidizing agents, strong.

10.4. Conditions to avoid

Keep away from heat. Ignition hazard.

10.5. Incompatible materials

Alkali metals, Oxidizing agents, strong.

10.6. Hazardous decomposition products

In case of fire may be liberated: Pyrolysis products, toxic.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

ATEmix calculated

ATE (oral) > 5000 mg/kg; ATE (dermal) > 5000 mg/kg; ATE (inhalation vapour) > 50 mg/l; ATE (inhalation dust/mist) > 12,5 mg/l

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

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; isopropyl alcohol; isopropanol; butanone; ethyl methyl ketone)

STOT-repeated exposure

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

Has degreasing effect on the skin.

Aspiration hazard

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

Information on likely routes of exposure

oral, dermal, inhalative, Eye contact.

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1. Toxicity

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

The product is not: Ecotoxic

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

Anreissfluid_Marking Fluid

Revision date: 30.03.2023

Product code: 0601-4

Page 7 of 9

12.2. Persistence and degradability

product has not been tested.

12.3. Bioaccumulative potential

No indication of bio-accumulation potential.

12.4. Mobility in soil

No data available

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No data available

Further information

The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

The waste key according to the European Waste Catalogue (EWC number) refers to the real wastes origin and therefore is not product- but use-oriented.

Control report for waste code/ waste marking according to EAKV:

Contaminated packaging

Water (with cleaning agent). Completely emptied packages can be recycled.

SECTION 14: Transport information

Marine transport (IMDG)

<u>14.1. UN number or ID number:</u>	UN 1993
<u>14.2. UN proper shipping name:</u>	FLAMMABLE LIQUID, N.O.S. (Isopropanol, Ethyl methyl ketone)
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	II
Hazard label:	3



Marine pollutant:	-
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

<u>14.1. UN number or ID number:</u>	UN 1993
<u>14.2. UN proper shipping name:</u>	FLAMMABLE LIQUID, N.O.S. (Isopropanol, Ethyl methyl ketone)
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	II
Hazard label:	3



Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

Anreissfluid_Marking Fluid

Revision date: 30.03.2023

Product code: 0601-4

Page 8 of 9

Special Provisions:	A3	
Limited quantity Passenger:	1 L	
Passenger LQ:	Y341	
Excepted quantity:	E2	
IATA-packing instructions - Passenger:		353
IATA-max. quantity - Passenger:		5 L
IATA-packing instructions - Cargo:		364
IATA-max. quantity - Cargo:		60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Highly flammable liquid and vapour.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

Other applicable information

Hazchem code: -

SECTION 15: Regulatory information

National regulatory information

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,5,7.

Revision date: 2009-01-26 completely revised

Revision date: 2011-05-26 Section 10, 14

Revision date: 2012-03-28 Section 11,12

Revision date: 2015-02-19 GHS

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Safety Data Sheet

according to UN GHS (ST/SG/AC.10/11/Rev.9)

Anreissfluid_Marking Fluid

Revision date: 30.03.2023

Product code: 0601-4

Page 9 of 9

Abbreviations and acronyms

CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
VOC: Volatile Organic Compounds
SVHC: Substance of Very High Concern
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Further Information

Restricted to professional users.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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