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

1.1. Product identifier Trade name/designation:

MoCheck 304/316 Fluid 1

Article No.:

CHI7200-1

UFI:

7CRM-Y2ES-K5S5-9AHE

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

Use of the substance/mixture: analytical chemical Reagents and laboratory chemicals The product is intended for professional use.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

Poligrat Deutschland GmbH Abteilung Chemie Valentin-Linhof-Str. 19 81929 München Germany Telephone: +49 (89) 42778-0 Telefax: +49 (89) 42778-309 E-mail: info@poligrat.de Website: www.poligrat.de

E-mail (competent person): sdb@poligrat.de

1.4. Emergency telephone number

Bispebjerg Hospital - www.bispebjerghospital.dk -Danish Poison Center (Giftlinjen), 24h: +45 82 12 12 12

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals (Met. Corr. 1)	H290: May be corrosive to metals.	On basis of test data.
Skin corrosion/irritation (Skin Corr. 1)	H314: Causes severe skin burns and eye damage.	Calculation method.
Serious eye damage/eye irritation (Eye Dam. 1)	H318: Causes serious eye damage.	Calculation method.
Acute toxicity (inhalative) (Acute Tox. 4)	H332: Harmful if inhaled.	Calculation method.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms:



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Hazard components for labelling:

nitric acid

Hazard statements for physical hazards		
H290 May be corrosive to metals.		
Hazard statements for health hazards		

Hazard statements for health hazards		
H314	Causes severe skin burns and eye damage.	
H332	Harmful if inhaled.	

Supplemental hazard information

EUH071 Corrosive to the respiratory tract.

Precautionary statements Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/

Precautionary statements Response

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].P305 + P351 + P338IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary statements Disposal

Dispose of contents/container to in accordance with local/national regulation.

2.3. Other hazards

Adverse environmental effects:

Does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

P501

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 7697-37-2 EC No.: 231-714-2 Index No.: 007-004-00-1 REACH No.: 01-2119487297-23-XXXX	nitric acid Acute Tox. 3 (H331), Met. Corr. 1 (H290), Ox. Liq. 2 (H272), Skin Corr. 1A (H314) $\bigcirc \bigcirc $	10 - < 20 weight-%

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Remove contaminated, saturated clothing.

Following inhalation:

Provide fresh air. Get medical advice/attention.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion:

Call a physician immediately.

Do NOT induce vomiting. Rinse mouth. Let 1 glass of water be drunken in little sips (dilution effect).

Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider.

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

Skin corrosion/irritation. Serious eye damage/eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically. Forward this sheet to the doctor.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings. The product itself does not burn.

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products. The product itself does not burn.

Hazardous combustion products:

In case of fire: Gases/vapours, toxic. Nitrogen oxides (NOx).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Fire residues and contaminated firefighting water must be disposed in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Remove persons to safety.

Protective equipment:

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

Emergency procedures:

Provide adequate ventilation. Keep people away. Stay on the upwind side.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Absorb with liquid-binding material (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

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

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8). Ensure adequate ventilation on workstation.

Fire prevent measures:

No special measures are necessary.

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Advices on general occupational hygiene

Wash hands before breaks and after work. Use barrier skin cream. Take off contaminated clothing and wash it before reuse. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:

Keep/Store only in original container. Provide acid-resistant floor.

Hints on storage assembly:

Do not store with alkalies.

Storage class (TRGS 510, Germany): 8B - Non-combustible corrosive substances

7.3. Specific end use(s)

Recommendation:

See subsection 1.2, use of the substance/mixture. See product information. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	 Long-term occupational exposure limit value Short-term occupational exposure limit value Instantaneous value Monitoring and observation processes Remark
DK from 13 Feb 2021	nitric acid CAS No.: 7697-37-2 EC No.: 231-714-2	 1 ppm (2.6 mg/m³) 1 ppm (2.6 mg/m³) ES
IOELV (EU)	nitric acid CAS No.: 7697-37-2 EC No.: 231-714-2	② 1 ppm (2.6 mg/m ³)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	 DNEL type Exposure route
nitric acid CAS No.: 7697-37-2 EC No.: 231-714-2	2.6 mg/m ³	 DNEL worker Long-term - inhalation, local effects
nitric acid CAS No.: 7697-37-2 EC No.: 231-714-2	2.6 mg/m ³	 DNEL worker Acute - inhalation, local effects

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No data available

8.2.2. Personal protection equipment



Eye/face protection:

Eye glasses with side protection. Tightly fitting goggles (EN 166:2001)

Skin protection:

Hand protection: Tested protective gloves must be worn (EN ISO 374).

Suitable material: 0,7 mm Butyl caoutchouc (butyl rubber) Breakthrough time: >480 min

The details concerned are recommendations. Please contact the glove supplier for further information.

Body protection: Acid-resistant protective clothing.

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Respiratory protection:

Respiratory protection necessary at: aerosol or mist formation, high concentrations. Suitable respiratory protection apparatus: short-term Full-/half-/quarter-face masks (EN 136/140) Filter type: E-P2 / ABEK-P2 (EN 14387).

Other protection measures:

Avoid contact with skin, eyes and clothes.

Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.

8.2.3. Environmental exposure controls

No data available

8.3. Additional information

Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Odour: not determined

Safety relevant basis data Parameter Value at °C Method 2 Remark pН 1 - 2 20 °C 1 10 g/l Melting point not determined Freezing point not determined Initial boiling point and boiling range not determined Decomposition temperature not determined Flash point not determined Evaporation rate not determined Auto-ignition temperature not determined Upper/lower flammability or explosive not determined limits Vapour pressure not determined Vapour density not determined 20 °C Density 1.22 - 1.25 g/cm³ Relative density not determined Bulk density not determined Water solubility completely miscible Partition coefficient: n-octanol/water not determined Dynamic viscosity not determined Kinematic viscosity not determined

Colour: colourless

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

None known when used in accordance with instructions. The product itself does not burn.

10.2. Chemical stability

Stable under normal ambient conditions (ambient temperature).

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10.3. Possibility of hazardous reactions

Avoid contact with strong alkalies (strong exothermic reactions). Reaction with various metals will cause formation of nitrous gases and hydrogen gas.

10.4. Conditions to avoid

Strong heating.

10.5. Incompatible materials

Do not use acid sensitive materials. May be corrosive to metals.

10.6. Hazardous decomposition products

No decomposition for intended use. In case of fire: Gases/vapours, toxic.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

nitric acid CAS No.: 7697-37-2 EC No.: 231-714-2

LC₅₀ Acute inhalation toxicity (vapour): >2.65 mg/L 4 h (Rat) OECD 403

Acute oral toxicity:

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

Acute dermal toxicity:

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

Acute inhalation toxicity:

Harmful if inhaled.

Skin corrosion/irritation:

Causes severe skin burns and eye damage.

Serious eye damage/irritation:

Causes serious eye damage.

Respiratory or skin sensitisation:

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

Germ cell mutagenicity:

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

Carcinogenicity:

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

Reproductive toxicity:

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

STOT-single exposure:

Corrosive to the respiratory tract.

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. Additional information:

No data available

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

nitric acid CAS No.: 7697-37-2 EC No.: 231-714-2

LC50: 12.5 mg/L 4 d (fish, Oncorhynchus mykiss (Rainbow trout)) OECD 203

EC₅₀: 4.6 mg/L 2 d (crustaceans, Ceriodaphnia spec) US-EPA

Effects in sewage plants:

The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

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12.2. Persistence and degradability

nitric acid CAS No.: 7697-37-2 EC No.: 231-714-2

Biodegradation: not determined

Remark: Not applicable for inorganic substances.

12.3. Bioaccumulative potential

nitric acid CAS No.: 7697-37-2 EC No.: 231-714-2

Log K_{OW}: -2.3

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

nitric acid CAS No.: 7697-37-2 EC No.: 231-714-2

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liasion with the waste-disposal operator.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

11 01 05 * pickling acids

*: Evidence for disposal must be provided.

Remark:

Hazardous waste according to Directive 2008/98/EC (waste framework directive). The waste code mentioned is a recommendation.

Waste code packaging

15 01 02	Plastic packaging
15 01 10 *	packaging containing residues of or contaminated by dangerous substances
*: Evidence for disposal must be provided.	

Remark:

The waste code mentioned is a recommendation.

Waste treatment options

Appropriate disposal / Product:

Hazardous waste according to Directive 2008/98/EC (waste framework directive). Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Uncontaminated packaging may be taken for recycling. Handle contaminated packages in the same way as the substance itself.

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or	ID number	·	· · ·
UN 2031	UN 2031	UN 2031	UN 2031
14.2. UN proper shi	pping name	Å	<u>.</u>
NITRIC ACID	NITRIC ACID	NITRIC ACID	NITRIC ACID

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Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)	
14.3. Transport haza	rd class(es)			
8	8	8	8	
14.4. Packing group				
11	11	11	11	
14.5. Environmental	hazards			
No	No	No	No	
14.6. Special precautions for user				
Limited quantity (LQ):	Limited quantity (LQ):	Special Provisions:	Limited quantity (LQ): Y840	
Excepted Quantities (EQ): E2	Excepted Quantities (EQ): E2	Limited quantity (LQ):	Excepted Quantities (EQ): E2	
Hazard identification number (Kemler No.): 80	Classification code:	Excepted Quantities (EQ): E2		
Classification code:		EmS-No.: F-A, S-B Remark:		
Tunnel restriction code: (E)		IMDG-Code segregation group 1 - Acids		
Remark: Transport category 2				

14.7. Maritime transport in bulk according to IMO instruments No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. REACH, Annex XIV (SVHC list): Contains none or less than 0.1% of the listed substances.

Restrictions on use:

For use in industrial installations and professional treatment only.

Use restriction according to REACH annex XVII, no.: 3

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category. Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

Directive 2010/75/E0 on industrial emissions [industrial Emissions Directive] Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to

chemical agents at work

Directive 2011/65/EU (RoHS 2): Not listed

Council Directive 91/689/EEC of 12 December 1991 on hazardous waste

Regulation (EG) No. 1272/2008 (CLP)

Regulation (EG) No. 1907/2006 (REACH)

Regulation (EC) 2019/1021 [POP Regulation]: Not listed

15.1.2. National regulations

[DK] National regulations

Other regulations, restrictions and prohibition regulations

Overhold beskæftigelsesrestriktioner for unge mennesker.

Overhold beskæftigelsesrestriktioner for kommende og ammende mødre.

VOC-indhold: 0%

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15.2. Chemical Safety Assessment

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

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

16.2. Al	bbreviations and acronyms
ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EC ₅₀	Effective Concentration 50%
ECHA	European Chemicals Agency
EN	European Standard
ES	Exposure scenario
EWC IBC	European Waste Catalogue Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC ₅₀	Lethal (fatal) Concentration 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
OECD	Organisation for Economic Cooperation and Development
OSHA	Occupational Safety & Health Administration
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
SCL	Specific concentration limit
TRGS	Technische Regeln für Gefahrstoffe
	United Nations
	gulations for carriage of dangerous goods by Inland Waterways : regulations concerning the International Carriage of Dangerous Goods by Rail (RID) / by Road (ADR)
	sorbable organic halides
	C: European Waste Catalogue
	e German Ordinance on Installations for the Handling of Substances Hazardous to Water
	German professional association of raw materials and chemical industry
	: Biological Limit Values
CAS: Che	emical Abstracts Service
	ssification, Labelling and Packaging
	utsche Forschungsgemeinschaft / German Research Foundation
	SO: German Institute for Standardization / European Standard / International Organization for
Standard	
	erived No-Effect Level
	C: see AVV/EWC
	If maximal effective concentration
	epted Quantity
	alf maximal growth inhibitory concentration
	WG: European Union / European Community (EC) / European Economic Community (EEC)
	obally Harmonized System of Classification, Labelling and Packaging of Chemicals
	rmediate Bulk Container ATA DCB: Technical Instructions For The Safe Transport of Dangerous Goods by Air / International Air
	ATA-DGR: Technical Instructions For The Safe Transport of Dangerous Goods by Air / International Air t Association Dangerous Goods Regulations
	ternational Maritime Code for Dangerous Goods
	dicative Occupational Exposure Limit Values
	thal concentration, 50 percent
- 50. 20.	· F
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LD₅₀: Lethal dose, 50 percent

LQ: Limited Quantity

MARPOL: International Convention for the Prevention of Marine Pollution from Ships N.O.S.: Not otherwise specified

OECD: Organization for Economic Cooperation and Development

PBT: persistent, bioaccumulative and toxic

PNEC: Predicted No-Effect Concentration

ppm: parts per million

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

RoHS: Restriction of Hazardous Substances in electrical and electronic equipment

TRGS: German Technical Rules for Hazardous Substances

UFI: Unique Formula Identifier

UN: United Nations, herein as UN numbers.: identification numbers for hazardous substances in the framework of international transportation

US EPA: United States Environmental Protection Agency

VOC: Volatile Organic Compounds

vPvB: very persitent and very bioaccumulative

WGK: German water hazard class

WHG: German Water Resources Act

16.3. Key literature references and sources for data

The information used for creation of this safety data sheet are obtained by information of our suppliers and data from the database of registered substances of the European Chemicals Agency (ECHA).

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals (Met. Corr. 1)	H290: May be corrosive to metals.	On basis of test data.
Skin corrosion/irritation (Skin Corr. 1)	H314: Causes severe skin burns and eye damage.	Calculation method.
Serious eye damage/eye irritation (Eye Dam. 1)	H318: Causes serious eye damage.	Calculation method.
Acute toxicity (inhalative) (Acute Tox. 4)	H332: Harmful if inhaled.	Calculation method.

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H331	Toxic if inhaled.

16.6. Training advice

The employees must be instructed regularly based on information in this safety data sheet and the specific conditions of the workplace on the safe handling and storage of products. National regulations for instruction of employees on handling of hazardous substances must be observed.

16.7. Additional information

The receiver of our products is responsible for compliance with all applicable laws and regulations.