



BioAnalyt GmbH

14513 Teltow

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Version 03. Supersedes version: 02

Page 1 / 13

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

iCheck Chroma reagent

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

Test reagent

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

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Address enquiries to

Technical information	contact@bioanalyt.com
Safety Data Sheet	sdb@chemiebuero.de

1.4 Emergency telephone number

Company	+49 (0)3328-35150-00 Mo-Fr 8:30 - 17:30
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SECTION 2: Hazards identification
2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Skin Corr. 1B: H314 Causes severe skin burns and eye damage.
 Eye Dam. 1: H318 Causes serious eye damage.
 Acute Tox. 4: H302 Harmful if swallowed.
 Acute Tox. 3: H331 Toxic if inhaled.
 Carc. 2: H351 Suspected of causing cancer.
 Repr. 2: H361d Suspected of damaging the unborn child.
 STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure.
 STOT SE 3: H335 May cause respiratory irritation.
 Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects.



2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

Hazard pictograms**Signal word**

DANGER

Contains:Trichloromethane
Antimontrichlorid**Hazard statements**

H314 Causes severe skin burns and eye damage.
H302 Harmful if swallowed.
H331 Toxic if inhaled.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H335 May cause respiratory irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe vapours / spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

Human health dangers

If swallowed or in the event of vomiting, risk of product entering the lungs.

Environmental hazards

The product/the substance is hazardous to water.

Other hazards

Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

Range [%]	Substance
10 - <100	Trichloromethane CAS: 67-66-3, EINECS/ELINCS: 200-663-8, EU-INDEX: 602-006-00-4, Reg-No.: 01-2119486657-20-XXXX GHS/CLP: Carc. 2: H351 - Acute Tox. 4: H302 - Skin Irrit. 2: H315 - Repr. 2: H361d - Acute Tox. 3: H331 - STOT RE 1: H372 - Eye Irrit. 2: H319
10 - <90	Antimontrichlorid CAS: 10025-91-9, EINECS/ELINCS: 233-047-2, EU-INDEX: 051-001-00-8 GHS/CLP: Skin Corr. 1B: H314 - Aquatic Chronic 2: H411

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
For full text of H-statements: see SECTION 16.



SECTION 4: First aid measures

4.1 Description of first aid measures

General information	Remove contaminated soaked clothing immediately and dispose of safely.
Inhalation	Consult a doctor immediately. Ensure supply of fresh air. Remove the victim into fresh air and keep him calm. In case of respiratory arrest induce breathing with a respiratory device. Seek medical advice.
Skin contact	Immediate medical treatment necessary, as untreated burns can result in slow-healing wounds. In case of contact with skin wash off immediately with soap and water.
Eye contact	Consult a doctor immediately. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	Consult a doctor immediately. Do not induce vomiting. Rinse mouth.

4.2 Most important symptoms and effects, both acute and delayed

Product is caustic.
Nausea, vomiting.
Headache
Cough
Shortness of breath

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed or in the event of vomiting, risk of product entering the lungs.
Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	foam, dry powder, water spray jet, carbon dioxide
Extinguishing media that must not be used	Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Phosgene (COCl₂).
Hydrogen chloride (HCl).
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Metal oxides.

5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.
Use self-contained breathing apparatus.
Wear full protective suit.

Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Wear suitable protective equipment. For personal protection see SECTION 8.
Use breathing apparatus if exposed to vapours/aerosol.
Remove persons to safety.



BioAnalyt GmbH

14513 Teltow

Date printed 04.04.2018, Revision 04.04.2018

Version 03. Supersedes version: 02

Page 4 / 13

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. general-purpose binder).
Dispose of absorbed material in accordance with the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Provide suitable vacuuming at the processing machines and in the processing area.
Provide good room ventilation even at ground level (vapours are heavier than air).
Place the container in an upright position and protect it against falling over.
Open and handle container with care.
Read label for instructions in use of product.

After worktime and before work breaks the affected skin areas must be thoroughly cleaned.
Do not eat, drink, smoke or take drugs at work.
Remove contaminated soaked clothing immediately and dispose of safely.
Take off contaminated clothing and wash before reuse.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.
Do not store together with oxidizing agents.
Store locked up.
Keep container tightly closed.
Keep container in a well-ventilated place.
Protect from light.
Keep in a cool place. Store in a dry place.

7.3 Specific end use(s)

See product use, SECTION 1.2


SECTION 8: Exposure controls / personal protection
8.1 Control parameters
Ingredients with occupational exposure limits to be monitored (GB)

Substance
Antimontrichlorid
CAS: 10025-91-9, EINECS/ELINCS: 233-047-2, EU-INDEX: 051-001-00-8
Long-term exposure: 0,5 mg/m ³ , as Sb
Trichloromethane
CAS: 67-66-3, EINECS/ELINCS: 200-663-8, EU-INDEX: 602-006-00-4, Reg-No.: 01-2119486657-20-XXXX
Long-term exposure: 2 ppm, 9,9 mg/m ³ , Sk

Ingredients with occupational exposure limits to be monitored (EU)

Substance / EC LIMIT VALUES
Trichloromethane
CAS: 67-66-3, EINECS/ELINCS: 200-663-8, EU-INDEX: 602-006-00-4, Reg-No.: 01-2119486657-20-XXXX
Eight hours: 2 ppm, 10 mg/m ³ , H

DNEL

Substance
Trichloromethane, CAS: 67-66-3
Industrial, dermal, Long-term - systemic effects: 0,94 mg/kg bw/day.
Industrial, inhalative, Long-term - local effects: 2,5 mg/m ³ .
Industrial, inhalative, Acute - systemic effects: 333 mg/m ³ .
Industrial, inhalative, Long-term - systemic effects: 2,5 mg/m ³ .

PNEC

Substance
Trichloromethane, CAS: 67-66-3
soil, 0,56 mg/kg.
sediment (seaater), 0,09 mg/kg.
sediment (freshwater), 0,45 mg/kg.
sewage treatment plants (STP), 0,048 mg/l.
seawater, 0,015 mg/l.
freshwater, 0,146 mg/l.

**8.2 Exposure controls**

Additional advice on system design	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.
Eye protection	Tightly fitting goggles. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. 0,7 mm, Viton, >480 min (EN 374-1/-2/-3).
Skin protection	Protective clothing.
Other	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. 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. It is essential for pregnant women to avoid inhaling the product and not to let it come in contact with the skin.
Respiratory protection	Respiratory protection mask in the event of high concentrations. Short term: filter apparatus, filter AX (DIN EN 14387).
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

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

Form	liquid
Color	colourless
Odor	characteristic
Odour threshold	No information available.
pH-value	No information available.
pH-value [1%]	No information available.
Boiling point [°C]	No information available.
Flash point [°C]	No information available.
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	No information available.
Bulk density [kg/m³]	not applicable
Solubility in water	partially miscible
Partition coefficient [n-octanol/water]	No information available.
Viscosity	not applicable
Relative vapour density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Autoignition temperature [°C]	not applicable
Decomposition temperature [°C]	No information available.

9.2 Other information

none



SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Sensitivity to light.

10.3 Possibility of hazardous reactions

Reactions with alkalis (lyes).

Reactions with alcohols.

Reactions with oxidizing agents.

Reactions with light metals.

Reactions with water.

Reactions with halogenated compounds.

Reactions with peroxides.

10.4 Conditions to avoid

Strong heating.

Contact with moisture.

10.5 Incompatible materials

Rubber, various plastics

Various metals.

10.6 Hazardous decomposition products

In the event of fire: See SECTION 5.

As a result of storage:

Phosgene.



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Date printed 04.04.2018, Revision 04.04.2018

Version 03. Supersedes version: 02

Page 8 / 13

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
ATE-mix, inhalation (vapour), > 2 - 10 mg/l/4h.
ATE-mix, oral, > 300 - 2000 mg/kg.
Substance
Antimontrichlorid, CAS: 10025-91-9
LD50, oral, Rat: 525 mg/kg (Lit.).
Trichloromethane, CAS: 67-66-3
LD50, oral, Rat: 908 mg/kg (ECHA).

Serious eye damage/irritation	Risk of serious damage to eyes. Calculation method
Skin corrosion/irritation	Product is caustic. Calculation method
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — single exposure	May cause respiratory irritation. Calculation method
Specific target organ toxicity — repeated exposure	Causes damage to organs through prolonged or repeated exposure. Calculation method
Mutagenicity	No classification.
Reproduction toxicity	Suspected of damaging the unborn child. Calculation method
Carcinogenicity	Suspected of causing cancer. Calculation method
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	

Toxicological data of complete product are not available.
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

SECTION 12: Ecological information

12.1 Toxicity

Substance
Antimontrichlorid, CAS: 10025-91-9
LC50, (48h), Daphnia magna: 10,1 mg/l (Lit.).
LC50, (96h), Pimephales promelas: 9 mg/l (Lit.).
IC50, Algae: 6 mg/l/36h (Lit.).
Trichloromethane, CAS: 67-66-3
EC50, (48h), aquatic micro-organisms: 152,5 mg/l.
ErC50, (72h), Algae: 13,3 mg/l.

12.2 Persistence and degradability

	ThSB: 0,134 mg/mg (CAS 67-66-3) BOD 5: 20 mg/g (CAS 67-66-3) CO2Th, Theoretical Carbon Dioxide: 0,3686 mg/mg (CAS 67-66-3)
Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	CAS 67-66-3: The product is not readily biodegradable. CAS 10025-91-9: The product is not readily biodegradable.



BioAnalyt GmbH

14513 Teltow

Date printed 04.04.2018, Revision 04.04.2018

Version 03. Supersedes version: 02

Page 9 / 13

12.3 Bioaccumulative potential

log Kow: 1,97 (25°C)(CAS 67-66-3, IUCLID)

12.4 Mobility in soil

The Organic Carbon normalised adsorption coefficient: 1,939-2,565 (CAS 67-66-3)

Henry Constant: 14.084 Pa m³/mol (CAS 67-66-3)

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

The product contains organically bound halogen in accordance with the formulation.

Do not discharge product unmonitored into the environment or into the drainage.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

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 liaison with the waste-disposal operator.

Product

For recycling, consult manufacturer.

Dispose of as hazardous waste.

Waste no. (recommended)

070103*

060313*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended)

150110*

SECTION 14: Transport information

14.1 UN number

Transport by land according to ADR/RID 2922

Inland navigation (ADN) 2922

Marine transport in accordance with IMDG 2922

Air transport in accordance with IATA 2922



BioAnalyt GmbH

14513 Teltow

Date printed 04.04.2018, Revision 04.04.2018

Version 03. Supersedes version: 02

Page 10 / 13

14.2 UN proper shipping name

Transport by land according to ADR/RID Corrosive liquid, toxic, n.o.s. (Chloroform, Antimony trichloride)

- Classification Code CT1

- Label



- ADR LQ 1 I

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 2 (E)

Inland navigation (ADN)

Corrosive liquid, toxic, n.o.s. (Chloroform, Antimony trichloride)

- Classification Code CT1

- Label



Marine transport in accordance with IMDG

Corrosive liquid, toxic, n.o.s. (Chloroform, Antimony trichloride)

- EMS

F-A, S-B

- Label



- IMDG LQ

1 I

Air transport in accordance with IATA Corrosive liquid, toxic, n.o.s. (Chloroform, Antimony trichloride, solution)

- Label

**14.3 Transport hazard class(es)**

Transport by land according to ADR/RID 8

Inland navigation (ADN) 8

Marine transport in accordance with IMDG 8

Air transport in accordance with IATA 8

14.4 Packing group

Transport by land according to ADR/RID II

Inland navigation (ADN) II

Marine transport in accordance with IMDG II

Air transport in accordance with IATA II



BioAnalyt GmbH

14513 Teltow

Date printed 04.04.2018, Revision 04.04.2018

Version 03. Supersedes version: 02

Page 11 / 13

14.5 Environmental hazards

Transport by land according to ADR/RID yes

Inland navigation (ADN) yes

Marine transport in accordance with IMDG MARINE POLLUTANT

Air transport in accordance with IATA yes

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

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

No information available.

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

EEC-REGULATIONS 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2018).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).

- Observe employment restrictions for people Observe employment restrictions for young people.
Observe employment restrictions for mothers-to-be and nursing mothers.

- VOC (2010/75/CE) 10 - < 100%

15.2 Chemical safety assessment

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

SECTION 16: Other information**16.1 Hazard statements (SECTION 03)**

H411 Toxic to aquatic life with long lasting effects.
H314 Causes severe skin burns and eye damage.
H319 Causes serious eye irritation.
H372 Causes damage to organs through prolonged or repeated exposure.
H331 Toxic if inhaled.
H361d Suspected of damaging the unborn child.
H315 Causes skin irritation.
H302 Harmful if swallowed.
H351 Suspected of causing cancer.



16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@/TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Skin Corr. 1B: H314 Causes severe skin burns and eye damage. (Calculation method)
 Eye Dam. 1: H318 Causes serious eye damage. (Calculation method)
 Acute Tox. 4: H302 Harmful if swallowed. (Calculation method)
 Acute Tox. 3: H331 Toxic if inhaled. (Calculation method)
 Carc. 2: H351 Suspected of causing cancer. (Calculation method)
 Repr. 2: H361d Suspected of damaging the unborn child. (Calculation method)
 STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure. (Calculation method)
 STOT SE 3: H335 May cause respiratory irritation. (Calculation method)
 Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects. (Calculation method)

**Modified position**

SECTION 2 been added: H318 Causes serious eye damage.

SECTION 2 been added: Eye Dam. 1

SECTION 2 been added: P273 Avoid release to the environment.

SECTION 2 been added: P403+P233 Store in a well-ventilated place. Keep container tightly closed.

SECTION 2 deleted: P201 Obtain special instructions before use.

SECTION 4 been added: In case of respiratory arrest induce breathing with a respiratory device. Seek medical advice.

SECTION 5 been added: Collect contaminated firefighting water separately, must not be discharged into the drains.

SECTION 6 been added: Remove persons to safety.

SECTION 7 been added: Open and handle container with care.

SECTION 7 been added: Read label for instructions in use of product.

SECTION 7 been added: Take off contaminated clothing and wash before reuse.

SECTION 7 been added: Store locked up.

SECTION 7 been added: Place the container in an upright position and protect it against falling over.

SECTION 7 been added: Provide good room ventilation even at ground level (vapours are heavier than air).

SECTION 7 been added: Keep in a cool place. Store in a dry place.

SECTION 8 been added: 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 deleted: not determined

SECTION 9 been added: No information available.

SECTION 10 been added: Phosgene.

SECTION 10 been added: As a result of storage:

SECTION 11 been added: Calculation method

SECTION 11 been added: Based on the available information, the classification criteria are not fulfilled.

SECTION 11 been added: May cause respiratory irritation.

SECTION 11 been added: Causes damage to organs through prolonged or repeated exposure.

SECTION 11 been added: Suspected of damaging the unborn child.

SECTION 11 been added: Suspected of causing cancer.

SECTION 11 been added: Based on the available information, the classification criteria are not fulfilled.

SECTION 11 been added: Risk of serious damage to eyes.

SECTION 12 deleted: not determined

SECTION 12 been added: No information available.

SECTION 12 been added: The product is not readily biodegradable.

SECTION 15 been added: Observe employment restrictions for mothers-to-be and nursing mothers.

SECTION 15 been added: Observe employment restrictions for young people.

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