

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product identifier:****Identification as on the label/Trade name:** Headlight Cleaner**Product number:** KC-10.10.050.88, KC-10.10.050.46**EAN:** 8682729303918, 8682729303499**1.2 Relevant identification uses of the substance and uses advised against:****Identified uses:** Light restoration and repair coating**Uses advised against:** No other uses are advised.**1.3 Details of the Supplier of the Safety Data Sheet:**KOCHMAIER
Minervastr. 36
74613 Öhringen
+49-170-290-6038**1.4 Emergency telephone numbers:**

24-hour Emergency Contact:

+49-170-290-6038

Section 2: Hazards Identification**2.1 Classification of the substance or mixture:****2.1.1 The mixture is classified according to:** Not a hazardous substance or mixture according to Regulation (EC)
No 1272/2008**Hazard classes/Hazard categories:**

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 3), H331

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Carcinogenicity (Category 2), H351

Reproductive toxicity (Category 2), H361d

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Specific target organ toxicity - repeated exposure (Category 1), Liver, Kidney, H372

Long-term (chronic) aquatic hazard (Category 3), H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.1.2 Additional information:

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2.2 Label elements:**Hazard pictogram(s):**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required



Signal word: Danger

Hazard statements:

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H372 Causes damage to organs (Liver, Kidney) through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Supplemental Hazard Statements none

For use in industrial installations only.

Response

Storage

Disposal

2.3 Other hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 3: Composition/Information on Ingredients**3.1 Substance:**

Synonyms: Trichloromethane Methylidyne trichloride

3.2 Mixture:

Substance name (IUPAC/EC)	CAS-No.	Concentration % by weight	SCLs, M-Factors, Acute Toxicity Estimates (ATE)	Classification EC1272/2008
	EC-No.			
Chloroform	67-66-3	<= 100 %	-	Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; Carc. 2; Repr. 2; STOT SE 3; STOT RE 1; H302, H331, H315, H319, H351, H361d, H336, H372 Concentration limits: 20 %: STOT SE 3, H336;
	200-663-8			

For full text of H-statements, see Section 16.

Section 4: First-Aid Measures

4.1 Description of first aid measures:

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled: After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact: In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact: After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed: After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

Section 5: Fire-Fighting Measures

5.1 Extinguisher media:

Suitable extinguisher media: ---

Unsuitable extinguishing media: For this substance no limitations of extinguishing agents are given.

5.2 Special hazards arising from the mixture:

Carbon oxides

Hydrogen chloride gas

5.3 Recommendations for firefighting personnel:

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Advice for non-emergency personnel: Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency personnel: For personal protection see section 8.

6.2 Environmental precautions:

Do not let product enter drains.

6.3 Methods for containment and cleaning up:

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage**7.1 Precautions for safe handling:****Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including incompatibilities:**Storage conditions**

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage class

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8: Exposure Controls and Personal Protection**8.1 Control parameters:**

Occupational exposure limits: Ingredients with workplace control parameters.

Derived No Effect Level (DNEL)

Application Area	Routes of exposure	Health effect	Value
Worker DNEL, acute	inhalation	Systemic effects	333 mg/m ³
Worker DNEL, longterm	inhalation	Systemic effects	2,5 mg/m ³
Worker DNEL, longterm	dermal	Systemic effects	
Worker DNEL, longterm	inhalation	Local effects	2,5 mg/m ³
Consumer DNEL, longterm	inhalation	Systemic effects	0,18 mg/m ³

Predicted No Effect Concentration (PNEC)

Compartment	Value
Fresh water	0,146 mg/l
Fresh water sediment	0,45 mg/kg
Sea water	0,015 mg/l
Sea sediment	0,09 mg/kg
Aquatic intermittent release	0,133 mg/l
Soil	0,56 mg/kg
Sewage treatment plant	0,048 mg/l

8.2 Exposure controls:**Personal protective equipment****Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Fluorinated rubber
Minimum layer thickness: 0,7 mm
Break through time: 480 min
Material tested: Vitoject[®] (KCL 890 / Aldrich Z677698, Size M)

Splash contact

Material: Fluorinated rubber
Minimum layer thickness: 0,7 mm
Break through time: 480 min
Material tested: Vitoject[®] (KCL 890 / Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method:

EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

protective clothing

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type AX

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

Section 9: Physical and Chemical Properties**9.1 Information on basic physical and chemical properties:****Physical state:** liquid, clear**Colour:** colorless**Odour and odour threshold:** sweet**pH (concentration):** No data available.**Melting point/range (°C):** Melting point/range: -63 °C**Boiling point/range (°C):** 60,5 - 61,5 °C**Flash point (°C):** - Regulation (EC) No. 440/2008, Annex, A.9 does not flash**Evaporation rate:** No data available.**Flammability (solid, gas):** No data available.**Upper/lower flammability/explosive limits:** No data available**Vapour pressure:** 210 hPa at 20 °C**Vapour density:** No data available**Relative density (20 °C):** No data available.**Water solubility:** 8,7 g/l at 23 °C - OECD Test Guideline 105**Solubility in other solvents:** No data available.**n-Octanol/Water partition coefficient:** No data available.**Auto-ignition temperature:** No data available**Decomposition temperature:** Distillable in an undecomposed state at normal pressure.**Viscosity, dynamic (mPa.s):** Viscosity, kinematic: No data available

Viscosity, dynamic: No data available.

Particle characteristics: No data available**Explosive properties:** No data available**Oxidizing properties:** none

9.2 Other data:**9.2.1 Other safety information:****Solubility in other solvents:** organic solvent at 20 °C- miscible**Relative vapor density:** 4,12 - (Air = 1.0)**Section 10: Stability and Reactivity****10.1 Reactivity:** No data available**10.2 Chemical stability:** The product is chemically stable under standard ambient conditions (room temperature).
Contains the following stabilizer(s): 2-methyl-2-butene (0,003 %)**10.3 Possibility of hazardous reactions:** No data available**10.4 Conditions to avoid:** no information available**10.5 Incompatible materials:** various plastics, RubberStrong oxidizing agents**10.6 Hazardous decomposition products:** In the event of fire: see section 5.**Section 11: Toxicological Information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:****Acute toxicity:**

Oral: No data available

LD50 Oral - Rat - male - 908 mg/kg
(OECD Test Guideline 401)Acute toxicity estimate Oral - 908 mg/kg
(ATE value derived from LD50/LC50 value)

Acute toxicity estimate Inhalation - 4 h - 3,1 mg/l - vapor (Calculation method)

LC50 Inhalation - Rat - 6 h - 9,17 mg/l - vapor

Acute toxicity estimate Inhalation - Expert judgment - 4 h - 3,1 mg/l - vapor

Dermal: No data available

Skin corrosion/irritation:

Skin - Rabbit

Result: Irritating to skin. - 24 h

Remarks: (ECHA)

Remarks: Drying-out effect resulting in rough and chapped skin.

Skin - Rabbit

Result: slight irritation

Remarks: (IUCLID)

Serious eye damage/irritation:

Eyes - Rabbit

Result: Irritating to eyes.

Remarks: (ECHA)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization:

Maximization Test - Guinea pig

Result: negative

(Regulation (EC) No. 440/2008, Annex, B.6)

Germ cell mutagenicity: Test Type: Ames test

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Remarks: (ECHA)

Test Type: unscheduled DNA synthesis assay

Test system: Liver
Metabolic activation: without metabolic activation
Result: negative
Remarks: (ECHA)
Test Type: Micronucleus test
Species: Rat
Cell type: Red blood cells (erythrocytes)
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative
Test Type: unscheduled DNA synthesis assay
Species: Rat
Cell type: Liver cells
Application Route: Oral
Method: OECD Test Guideline 486
Result: negative
Test Type: in vivo assay
Species: Mouse
Application Route: Inhalation
Result: negative
Remarks: (ECHA)

Carcinogenicity: Suspected of causing cancer.

Reproductive toxicity: Suspected of damaging the unborn child.

STOT-single exposure: May cause drowsiness or dizziness.

STOT-repeated exposure: Oral - Causes damage to organs through prolonged or repeated exposure.

- Liver, Kidney

Aspiration hazard: No data available

11.2 Information regarding other hazard classes which relates to endocrine disrupting properties:

Endocrine disrupting properties:

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - male - Oral - 28 Days - NOAEL (No observed adverse effect level) - 34 mg/kg

RTECS: FS9100000

Vomiting, Cough, irritant effects, Shortness of breath, respiratory arrest, narcosis, Dizziness, Nausea, agitation, spasms, inebriation, Headache, Stomach/intestinal disorders, ataxia (impaired locomotor coordination), cardiovascular disorders

Drying-out effect resulting in rough and chapped skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information**12.1 Toxicity:**

Toxicity to algae static test ErC50 - Chlamydomonas reinhardtii (green algae) -
13,3 mg/l - 72 h
Remarks: (ECHA)
(Chloroform)

Toxicity to bacteria Remarks: (ECHA)
(Chloroform)

Toxicity to bacteria Remarks: (ECHA)
(Chloroform)

Toxicity to fish flow-through test NOEC - Oryzias latipes - 0,15 mg/l - 9 Months
(Chronic toxicity) Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates semi-static test NOEC - Daphnia magna (Water flea) - 6,3 mg/l - 21 d
(Chronic toxicity) Remarks: (ECHA)

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available.

12.4 Mobility in soil: No data available.

12.5 Results of PBT& vPvB assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties:**Product:**

Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects: No data available.

Section 13: Disposal Considerations

13.1 Waste treatment methods: No data available.

Section 14: Transport Information**14.1 UN number:**

ADR/RID: 1888

IMDG: 1888

IATA: 1888

14.2 UN proper shipping name:

ADR/RID: CHLOROFORM

IMDG: CHLOROFORM

IATA: CHLOROFORM

14.3 Transport hazard class:

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

14.4 Packing group:

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards:

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user:

Tunnel restriction code: (E)

Further information: No data available

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.**Section 15: Regulatory Information****15.1 Safety, health and environmental regulations/legislation for the mixture:**

Directive 98/24/CE (Risks related to chemical agents during work)

Directive 2000/39/EC (Occupational exposure limits)

Regulation (EC) 1907/2006 (REACH)

Regulation (EC) 1272/2008 (CLP)

Regulation (EC) 790/2009 (ATP 1 CLP) and (EU) no. 758/2013

Regulation (EU) 2020/878

Regulation (EU) 286/2011 (ATP 2 CLP)

Regulation (EU) 618/2012 (ATP 3 CLP)

Regulation (EU) 487/2013 (ATP 4 CLP)

Regulation (EU) 944/2013 (ATP 5 CLP)

Regulation (EU) 605/2014 (ATP 6 CLP)

Regulation (EU) 1221/2015 (ATP 7 CLP)

Regulation (EU) 918/2016 (ATP 8 CLP)

Regulation (EU) 1179/2016 (ATP 9 CLP)

Regulation (EU) 2017/776 (ATP 10 CLP)

Regulation (EU) 2018/669 (ATP 11 CLP)

Regulation (EU) 2018/1480 (ATP 13 CLP)

Regulation (EU) 2019/521 (ATP 12 CLP)

Regulation (EU) 2020/217 (ATP 14 CLP)

Regulation (EU) 2020/1182 (ATP 15 CLP)

Regulation (EU) 2021/643 (ATP 16 CLP)

ECHA website

RIGOLETTO website (WGK)

IFA GESTIS (OEL) website

SVHC Substances: This product does not contain substances of very high concern above the corresponding legal concentration limit. (≥ 0.1 % w/w) according to EC regulation 1907/2006 (REACH), article 57.**15.2 Chemical Safety Assessment carried out:**

No chemical safety assessment has been carried out for the mixture. The Safety Data Sheet incorporates the relevant information on the components of the mixture and, where possible, includes related exposure scenarios.

Section 16: Other Information

Indication of changes: First version.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Main bibliographical sources:

The results of toxicological studies or their suppliers.

ECHA website, GESTIS website (international exposure limit values), ACGIH (TLV and Bet).

Notice to readers:

The information detailed here is based on our knowledge up to the date indicated above. Refers exclusively to the product indicated and does not constitute a guarantee of particular qualities. The user must ensure the suitability and accuracy of said information in relation to the specific use to be made of the product.

List of abbreviations:

ACGIH American Conference of Governmental Industrial Hygienists
ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road
ALARA As Low As Is Reasonably Achievable
AMU Atomic Mass Unit
ANSI American National Standards Institute
CAM Continuous Air Monitor
CAS Chemical Abstracts Service (division of the American Chemical Society)
CEN European Committee for Standardization
CERCLA Comprehensive Environmental Response Compensation and Liability Act
CLP Classification, Labelling and Packaging (European Union)
CPR Controlled Products Regulations (Canada)
CWA Clean Water Act (USA)
DAC Derived Air Concentration (USA)

DOT United States Department of Transportation (USA)
DSL Domestic Substances List (Canada)
EC50 Half Maximal Effective Concentration
EINECS European Inventory of Existing Commercial Chemical Substances
EHS Environmentally Hazardous Substance
ELINCS European List of Notified Chemical Substances
EMS Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA Environmental Protection Agency (USA)
EPCRA Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986
GHS Globally Harmonized System
HMIS Hazardous Materials Identification System (USA)
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC Intermediate Bulk Containers
ICAO International Civil Aviation Organization
IDLH Immediately Dangerous to Life or Health
IMDG International Maritime Code for Dangerous Goods
LC50 Lethal concentration, 50 percent
LD50 Lethal dose, 50 percent
LDLO Lethal Dose Low
LOEC Lowest-Observed-Effective Concentration
MARPOL International Convention for the Prevention of Pollution from Ships
MSHA Mine Safety and Health Administration (USA)
NCRP National Council on Radiation Protection & Measurements (USA)
NDSL Non-Domestic Substances List (Canada)
NFPA National Fire Protection Association (USA)
NIOSH National Institute for Occupational Safety and Health (USA)
NOEC No Observed Effect Concentration
N.O.S. Not Otherwise Specified
NRC Nuclear Regulatory Commission (USA)
NTP National Toxicology Program (USA)
OSHA Occupational Safety and Health Administration (USA)
PBT Persistent Bioaccumulative and Toxic Chemical
PEL Permissible Exposure Limit
PIH Poisonous by Inhalation Hazard
RCRA Resource Conservation and Recovery Act (USA)
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (Europe)
RID Regulations Concerning the International Transport of Dangerous Goods by Rail
RTECS Registry of Toxic Effects of Chemical Substances
SARA Superfund Amendments and Reauthorization Act (USA)
TDG Transportation of Dangerous Goods (Canada)
TIH Toxic by Inhalation Hazard
TLV Threshold Limit Value
TPQ Threshold Planning Quantity
TSCA Toxic Substances Control Act
TWA Time Weighted Average
UN United Nations (Number)
VOC Volatile Organic Compound
vPvB Very Persistent Very Bioaccumulative Chemical
WHMIS Workplace Hazardous Materials Information System