



SAFETY DATA SHEET

touch-up pen

Material number 46076L00

Revision date: 15.12.2022
Version: 9.0
Replaces version: 8.1
Language: en-UN
Date of print: 2.1.2023
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1. Identification of the substance/mixture and of the company/undertaking

Product identifier

Trade name: touch-up pen

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

General use: No data available

Details of the supplier of the safety data sheet

Company name: Grohe AG
Street/POB-No.: Industriepark Edelburg
Postal Code, city: DE-58675 Hemer
WWW: www.grohe.com
E-mail: info@grohe.com
Telephone: +49 (0)2372 93-0
Telefax: +49 (0)2372 93-1322
Department responsible for information:
Telephone: +49 (0)2372 93-2037
sustainability@grohe.com
Additional information: Corporate headquarters:
Grohe AG
Feldmühleplatz 15
40545 Düsseldorf
Telephone: +49 (0)211 9130 3000

Emergency telephone number

GIZ-Nord, Göttingen, Germany,
Telephone: +49 551-19240

2. Hazards identification

Classification of the substance or mixture

GHS classification

Flammable Liquid 3 Flammable liquid and vapor.
Specific Target Organ Toxicity (Single Exposure) 3 May cause drowsiness or dizziness.

Label elements



Signal word:

Warning

Hazard statements:

Flammable liquid and vapor.
May cause drowsiness or dizziness.



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Precautionary statements: If medical advice is needed, have product container or label at hand.
Keep out of reach of children.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Use only outdoors or in a well-ventilated area.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
In case of fire: Use ... to extinguish.

Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Dispose of contents/container to hazardous or special waste collection point.

Other hazards

Potentially explosive mixtures may form if adequate ventilation is not provided.
Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may have a narcotic effect.
Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

3. Composition/information on ingredients

Mixtures

Chemical characterisation: Pen with liquid active agent:
Contains Mixture of the substances listed below with non-hazardous additions.

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 123-86-4	n-Butyl acetate	25 - 50 %	Flammable Liquid 3. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 108-65-6	2-Methoxy-1-methylethyl acetate	5 - 10 %	Flammable Liquid 3. Specific Target Organ Toxicity (Single Exposure) 3.
	Reaction mass of ethylbenzene and xylene	< 10 %	Flammable Liquid 3. Acute Toxicity 4 (dermal). Acute Toxicity 4 (inhalative). Skin Irritation 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3. Specific Target Organ Toxicity (Repeated Exposure) 2. Aspiration Toxicity 1.
CAS 64-17-5	Ethanol	2,5 - 5 %	Flammable Liquid 2. Eye Irritation 2A.
CAS 64742-82-1	Naphtha (petroleum), hydrodesulfurized, heavy	< 0,5 %	Flammable Liquid 3. Specific Target Organ Toxicity (Single Exposure) 3. Specific Target Organ Toxicity (Repeated Exposure) 1. Aspiration Toxicity 1. Aquatic toxicity - chronic 2.

Hazardous impurities Information about Naphtha (petroleum), hydrodesulfurized, heavy Naphtha (petroleum), hydrodesulfurized heavy: Contents of Benzene < 0,1%

4. First aid measures

General information: If medical advice is needed, have product container or label at hand. First aider: Pay attention to self-protection!



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In case of inhalation:	Provide fresh air. Seek medical aid in case of troubles.
Following skin contact:	Thoroughly wash skin with soap and water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.
After swallowing:	Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Subsequently consult physician.

Most important symptoms and effects, both acute and delayed

Inhaling can lead to irritations of the respiratory tract and mucous membrane.
Higher doses may have a narcotic effect.
Repeated exposure may cause skin dryness or cracking.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Firefighting measures

Extinguishing media

Suitable extinguishing media: Water spray jet, dry chemical powder, carbon dioxide.
In case of large fires Water spray jet, alcohol resistant foam.

Extinguishing media which must not be used for safety reasons:
Full water jet

Special hazards arising from the substance or mixture

Flammable liquid and vapor.
Air combined with vapors may form potentially explosive mixtures that are heavier than air.
Vapor may travel great distances and cause fire and backflashes.
In case of fire may be liberated: carbon monoxide and carbon dioxide

Advice for firefighters

Special protective equipment for firefighters:
Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:
Heating will lead to pressure increase: Danger of bursting and explosion. Cool exposed containers with water spray.
Move undamaged containers from immediate hazard area if it can be done safely.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
Do not allow fire water to penetrate into surface or ground water.
Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid breathing mist/vapors/spray. If possible, eliminate leakage. Avoid contact with the substance.
Eliminate all ignition sources if safe to do so. Provide adequate ventilation.
Wear appropriate protective equipment. Keep unprotected people away.
Cordon off downwind area at risk and warn inhabitants. Take off contaminated clothing and wash it before reuse.

Environmental precautions

Do not allow to enter soil, sewage, water bodies, lower level rooms or pits. If necessary notify appropriate authorities.



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Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

Beware of reignition. Thoroughly clean surrounding area.

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

Additional information: Use explosion-proof equipment and non-sparking tools/utensils.

7. Handling and storage

Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.
Avoid the formation of aerosol. Do not inhale vapor or fog.
Use only in well-ventilated areas. Do not allow containers to stand open.
Avoid contact with skin and eyes. Guarantee sufficient ventilation during and after use, in order to prevent vapor accumulation.
When handling large quantities, supply emergency spray. Take off contaminated clothing and wash it before reuse.

Precautions against fire and explosion:
Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharges.
Use only explosion-protected equipment/instruments. Do not weld.
In partially filled containers explosive mixtures may form.

Storage

Requirements for storerooms and containers:
Keep only in the original container in a cool, well-ventilated place.
Keep container tightly closed and dry.
Protect from heat and direct sunlight.
Store containers in upright position. Explosion protection required.

Hints on joint storage: Do not store together with combustible or self-igniting materials or any highly flammable solids. Keep away from food, drink and animal feedingstuffs.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
123-86-4	n-Butyl acetate	USA: ACGIH: STEL USA: ACGIH: TWA	150 ppm 50 ppm
64-17-5	Ethanol	USA: ACGIH: STEL	1000 ppm
1330-20-7	Xylene (isomeric mixture)	USA: ACGIH: TWA	20 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
1330-20-7	Xylene (isomeric mixture)	USA: ACGIH-BEI, urine	1,5 g/g creatinine	Methylhippuric acids	end of exposure or end of shift

Exposure controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment. Explosion protection required.

See also information in chapter 7, section storage.



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Personal protection equipment

Occupational exposure controls

Respiratory protection:	Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
Hand protection:	Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Glove material: butyl caoutchouc (butyl rubber) - Layer thickness: 0,4 mm Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.
Body protection:	Flame retardant, antistatic and chemical resistant protective clothing.
General protection and hygiene measures:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing mist/vapors/spray. Avoid contact with skin and eyes. Take off contaminated clothing and wash it before reuse. When using do not eat, drink or smoke. Wash hands before breaks and after work. When handling large quantities, supply emergency spray.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Color: white Varying colors
Odour:	Characteristic
Odour threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	78 °C
Flash point/flash point range:	23 °C
Evaporation rate:	No data available
Flammability:	Flammable liquid and vapor.
Explosion limits:	LEL (Lower Explosion Limit): 1,20 Vol-% UEL (Upper Explosive Limit): 7,50 Vol-%
Vapour pressure:	at 20 °C: 13 hPa
Vapour density:	No data available
Density:	at 20 °C: 0,95 g/mL
Water solubility:	Slightly miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	180 °C
Thermal decomposition:	No data available

Additional information

Viscosity, kinematic:	at 20 °C: 90 s (ISO 4 mm)
Explosive properties:	Product is not explosive. Vapors may form explosive mixtures with air.
Solvent content:	51 %



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10. Stability and reactivity

Reactivity:	Flammable liquid and vapor. Vapors may form explosive mixtures with air.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Heating will lead to pressure increase: Danger of bursting and explosion.
Conditions to avoid:	Keep away from heat sources, sparks and open flames. Protect from direct sunlight.
Incompatible materials:	No data available
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.
Thermal decomposition:	No data available

11. Toxicological information

Information on toxicological effects

Toxicological effects:	<p>The statements are derived from the properties of the single components. No toxicological data is available for the product as such.</p> <p>Acute toxicity (oral): Based on available data, the classification criteria are not met. ATEmix calculated: > 5.000 mg/kg.</p> <p>Acute toxicity (dermal): Based on available data, the classification criteria are not met. ATEmix calculated: > 5.000 mg/kg.</p> <p>Acute toxicity (inhalative): Based on available data, the classification criteria are not met. ATEmix calculated (Vapors): > 20 mg/L</p> <p>Skin corrosion/irritation: Based on available data, the classification criteria are not met. Repeated exposure may cause skin dryness or cracking.</p> <p>Serious eye damage/irritation: Based on available data, the classification criteria are not met.</p> <p>Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.</p> <p>Not known to cause sensitization.</p> <p>Skin sensitisation: Based on available data, the classification criteria are not met. Not known to cause sensitization.</p> <p>Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.</p> <p>Carcinogenicity: Based on available data, the classification criteria are not met.</p> <p>Reproductive toxicity: Based on available data, the classification criteria are not met.</p> <p>Effects on or via lactation: Lack of data.</p> <p>Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) 3 = May cause drowsiness or dizziness.</p> <p>Specific target organ toxicity (repeated exposure): Lack of data.</p> <p>Aspiration hazard: Based on available data, the classification criteria are not met.</p>
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Other information:

Information about n-Butyl acetate:

LD50 Rat, oral: 10800 mg/kg

LD50 Rabbit, dermal: > 17600 mg/kg

LC50 Rat, inhalative: > 21 mg/L/4h (vapor)

2-Methoxy-1-methylethyl acetate:

LD50 Rat, oral: 8532 mg/kg

LD50 Rabbit, dermal: > 5000 mg/kg

Information about Reaction mass of ethylbenzene and xylene Reaction mass of ethylbenzene and xylene:

LD50 Rat, oral: 3523 mg/kg

LD50 Rabbit, dermal: 2000 mg/kg

LC50 Rat, inhalative: 11 mg/L (vapor)

LC50 Rat, inhalative: 1,5 mg/L (Aerosol)

Information about Ethanol:

LD50 Rat, oral: 10420 mg/kg

LD50 Rabbit, dermal: > 2000 mg/kg

Information about Naphtha (petroleum), hydrodesulfurized, heavy Naphtha (petroleum), hydrodesulfurized heavy:

LD50 Rat, oral: > 5000 mg/kg

LD50 Rabbit, dermal: > 2000 mg/kg

Symptoms

In case of inhalation: Vapors in high concentrations have anaesthetic effect.

After contact with skin: Repeated exposure may cause skin dryness or cracking.

12. Ecological information

Toxicity

Further details: No data available

Persistence and degradability

Further details: No data available

Mobility in soil

No data available

Additional ecological information

General information: Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR: UN 1263



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Land transport (ADR/RID)

Warning board: ADR/RID: Kemmler-number 30, UN number UN 1263
Product designation: UN 1263, PAINT
ADR/RID: Class 3, Code: F1
Packing group: III
Hazard label: 3
Special Provisions: 163 367 650
Limited quantities: 5 L
EQ: E1
Package - Instructions: P001 IBC03 LP01 R001
Package - Special Provisions: PP1
Special provisions for packing together: MP19
Portable tanks - Instructions: T2
Portable tanks - Special Provisions: TP1 TP29
Tank coding: LGBF
Tunnel restriction code: D/E

Sea transport (IMDG)

UN number: UN 1263
Proper shipping name: UN 1263, PAINT
Class or division, Subsidiary risk: Class 3, Subrisk -
Packing Group: III
EmS: F-E, S-E
Special Provisions: 163 223 367 955
Limited quantities: 5 L
Excepted quantities: E1
Package - Instructions: P001, LP01
Package - Provisions: PP1
IBC - Instructions: IBC03
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: T2
Tank instructions - Provisions: TP1, TP29
Stowage and handling: Category A.
Properties and observations: Miscibility with water depends upon the composition.
Marine pollutant: no
Segregation group: none

Air transport (IATA)

UN/ID number: UN 1263
Proper shipping name: UN 1263, PAINT
Class or division, Subsidiary risk: Class 3
Packing Group: III
Hazard label: Flamm. liquid
Excepted Quantity Code: E1
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y344 - Max. Net Qty/Pkg. 10 L
Passenger and Cargo Aircraft: Pack.Instr. 355 - Max. Net Qty/Pkg. 60 L
Cargo Aircraft only: Pack.Instr. 366 - Max. Net Qty/Pkg. 220 L
Special Provisions: A3 A72 A192
Emergency Response Guide-Code (ERG): 3L

15. Regulatory information

Further regulations, limitations and legal requirements

No data available



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16. Other information

Text for labelling: **Contains: n-Butyl acetate; 2-Methoxy-1-methylethyl acetate**

Abbreviations and acronyms: Acute Toxicity: Acute toxicity
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
Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic
AS/NZS: Australian Standards/New Zealand Standards
Aspiration Toxicity: Aspiration toxicity
ATEmix: Acute Toxicity Estimate of mixture
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EN: European Standard
EQ: Excepted quantities
Eye Irritation: Eye irritation
Flammable Liquid: Flammable liquid
IATA: International Air Transport Association
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LC50: Median lethal concentration
LD50: Lethal dose 50%
LEL: Lower Explosion Limit
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OEL: Occupational Exposure Limit Value
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
Skin Irritation: Skin irritation
STOT RE: Specific target organ toxicity - repeated exposure
STOT SE: Specific target organ toxicity - single exposure
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
UN: United Nations
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

Reason of change: **Changes in section 1: Address
General revision**

Date of first version: **17.2.2016**

Department issuing data sheet

Contact person: **see section 1: Department responsible for information**

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.