

Safety Data Sheet

according to HPR, Schedule 1

Printing date 02/05/2019

Version number 33

Reviewed on 02/05/2019

1 Identification

- **Product identifier**
 - **Trade name:** Jowat Reiniger 406.78
 - **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
 - **Application of the substance / the mixture** Cleaning agent/ Cleaner
- **Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Jowat SE
Ernst-Hilker-Str. 10 - 14; D - 32758 Detmold
Tel. +49 (0)5231 749 0; Fax +49 (0)5231 749 236
e-mail: info@jowat.de
www.jowat.de
 - **Department issuing MSDS:**
Environmental management
Tel. +49 5231 749 -218 / -211 / -270
e-mail: umweltmanagement@jowat.de
 - **Information provided by department:**
Jowat Canada Ltd.
P.O. Box 149
Mississauga, ON L5M 2B7
Tel.: +1 336 434-9154
Fax: +1 336 434-9184
E-Mail: canada@jowat.com
 - **Emergency telephone number:** 1 800 424 9300 (Chemtrec 24 hours service)

* 2 Hazard identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids - Category 2

H225 Highly flammable liquid and vapour.



GHS07

Eye Irritation - Category 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure -
Category 3

H336 May cause drowsiness or dizziness.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger
- **Hazard-determining components of labeling:**
butanone
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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- **Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
- P370+P378 In case of fire: Use for extinction: CO₂, powder or water spray.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/Information on ingredients

- **Chemical characterization: Mixtures**

- **Description:**

Mixture of the substances listed below with nonhazardous additions.
Cleansing agent

- **Dangerous components:**

CAS: 78-93-3	butanone	>50% w/w
RTECS: EL 6475000		

- **SVHC** Not applicable.

- **Additional information**

In case any risk phrases are listed, please refer to paragraph 16 for the exact wording.

4 First aid measures

- **Description of first aid measures**

- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact**
Flush out opened eye for several minutes under running water. If symptoms persist, consult physician.
- **After swallowing** If symptoms persist consult physician.
- **Information for physician**
 - **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
 - **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

* 5 Firefighting measures

- **Extinguishing media**

- **Suitable extinguishing agents**

Foam extinguishing agent
CO₂, extinguishing powder or water spray. Fight larger fire with alcohol resistant foam.

- **For safety reasons unsuitable extinguishing agents** Water in a full jet.

- **Special hazards arising from the substance or mixture** Carbon monoxide (CO)

- **Advice for firefighters**

- **Protective equipment:**

Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.

* 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:**
Do not allow product to reach sewer system or open water.
Prevent seepage into sewer systems, pits and cellars.

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Prevent from spreading (e.g. by damming-in or oil barriers).

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, general-purpose binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

* 7 Handling and storage

- **Handling**

- **Precautions for safe handling**

Store in cool, dry place in tightly closed containers.

Provide good ventilation/extraction system in the workplace.

- **Information about protection against explosions and fires:** Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storage facilities and containers:** Store in a cool location.

- **Information concerning mixed product storage facilities:** Not required.

- **Further information on storage conditions:** Store in cool, dry conditions in well sealed receptacles.

- **Storage class 3**

- **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/ Personal protection

- **Additional information technical layout:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring in the workplace:**

78-93-3 butanone

EL (Canada)	Short-term value: 100 ppm Long-term value: 50 ppm
EV (Canada)	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm

- **Regulatory information**

EL (Canada): O. Reg. 287/17

EV (Canada): OHS Guidelines Part 5, Table of Exposure Limits for Chemical and Biological Substances

- **Additional information:**

The lists that were valid at the date of compilation of this MSDS were used as basis.

- **Exposure controls**

- **Personal protective equipment**

- **General protection and hygiene precautions**

The standard precautionary measures for handling chemicals should be observed.

Keep away from food, beverages and animal feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

- **Breathing equipment:** Not required.

- **Protection of hands:**

- **Material of gloves**

Recommended thickness of the material: ≥ 0.7 mm

Butyl rubber, BR

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- **Penetration time of glove material** Value for the permeation: Level ≤ 5
- **In case of permanent contact in work areas where the risk of injury is low (e.g. labs) gloves made of the following material are suitable:**
LLDPE gloves
- **In case of permanent contact, gloves made of the following materials are suitable:**
LLDPE gloves
- **In case of skin contact of maximum of 15 minutes gloves made of the following materials are suitable:**
Butyl rubber, BR
- **As protection from splashes gloves made of the following materials are suitable:**
Chloroprene rubber, CR
- **The following materials are unsuitable for gloves:**
Leather gloves
Strong gloves
- **Eye protection:**
Goggles recommended during refilling an spraying.
Safety glasses

* 9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
· Form:	Fluid
· Color:	Colorless
· Odor:	Pleasant
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
· Melting point/Melting range:	-86.3 °C
· Boiling point/Boiling range:	79 °C
· Flash point:	-4 °C
· Flammability (solid, gaseous)	Not applicable.
· Ignition temperature:	514 °C
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
· Lower:	1.8 Vol %
· Upper:	11.5 Vol %
· Vapor pressure at 20 °C:	101 hPa
· Density at 20 °C:	
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water at 20 °C:	290 g/l
· Partition coefficient (n-octanol/water):	
Not determined.	
· Viscosity:	
· dynamic at 20 °C:	0.4 mPas

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· kinematic:	Not determined.
· Solvent content:	
· Organic solvents:	98.5 %
· Solid content:	1.3 %
· Other information	No further relevant information available.
· VOC - Volatile Organic Compounds	
· European Union	98.48 %
· Switzerland	98.48 %
· U.S.A (less water and less exempts)	787.8 g/l / 6.57 lb/gal

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
Flammable gases/vapors
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
78-93-3 butanone		
Oral	LD50 oral	2,193 mg/kg (rat) (OECD 423)
Dermal	LD50 dermal	>5,000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50 / 4 h	40 mg/l (mouse) 34.5 mg/l (rat)

- **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations (Directive 1999/45/EC of the European Parliament and of the Council) as issued in the latest version:
Vapors have narcotic effect.
Irritant

· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

*12 Ecological information

- **Toxicity**

· Aquatic toxicity:	
78-93-3 butanone	
LC50 / 96 h	>3,000 mg/l (orfe (ide)) (OECD 203) 2,993 mg/l (fathead minnow)
LC50 / 48 h	1,723 mg/l (water flea) (OECD 202)

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LC0	4,400-4,800 mg/l (orfe (ide))
	1,150 mg/l (pseudomonas putida)
EC50 / 48 h	>100 mg/l (water flea)
EC0	2,000-2,600 mg/l (water flea)
IC0	4,300 mg/l (green algae)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
 - **Bioaccumulative potential** No further relevant information available.
 - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
 - **General remarks:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Prevent undiluted product or product in large amounts to reach ground water, open waters or sewer systems.
- **Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

*13 Disposal considerations

- **Waste treatment methods**
 - **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewer system.

Hand over to hazardous waste disposers.
- **Uncleaned containers/packaging materials:**
 - **Recommendation:**

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.


Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning.

Packaging with cured adhesive residues can be recycled.

Packaging with cured adhesive residues can be treated as household waste.

Packaging with uncured adhesive residues must be disposed of as hazardous waste.

14 Transport information

· UN-Number	
· DOT, TDG, IMDG, IATA	UN1133
· UN proper shipping name	
· DOT	Adhesives
· TDG	1133 ADHESIVES
· IMDG, IATA	ADHESIVES
· Transport hazard class(es)	
· DOT, IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3

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· TDG (Transport dangerous goods):	
	
· Class	3 (F1) Flammable liquids
· Label	3
· Packing group	
· DOT, TDG, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	
· Danger code (Kemler):	Warning: Flammable liquids 33
· EMS Number:	F-E,S-D
· Stowage Category	B
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Not applicable.	
· Transport/Additional information:	
· TDG	
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	
UN 1133 ADHESIVES, 3, II	

15 Regulatory information

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

· SARA Section 355 (extremely hazardous substances)

None of the ingredients is listed.

· SARA Section 313 (specific toxic chemical listings)

78-93-3 | butanone

· TSCA (Toxic Substances Control Act) (Substances not listed)

All ingredients are listed.

· Canadian Domestic Substances List (DSL) (Substances not listed)

All ingredients are listed.

· Canadian Non Domestic Substances List (NDSL) (Substances not listed)

None of the ingredients is listed.

· Canadian ingredient disclosure list

· Limit 0,1 %

None of the ingredients is listed.

· Limit 1 %

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· **Cancerogenity categories**

· EPA (Environmental Protection Agency)	
butanone	I
· TLV (Threshold Limit Value established by ACGIH)	
None of the ingredients is listed.	
· NIOSH-Ca (National Institute for Occupational Safety and Health)	
None of the ingredients is listed.	

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

These data are based on our present state of information. They shall, however, not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. All standard industrial precautions apply, concerning protection of health, and safe handling. The recommendations have to be examined in the context of the application for which the product is intended, and observed as necessary.

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 SVHC: Substances of Very High Concern
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health

· *** Data in paragraphs with asterisk are revised in comparison to the previous version.**