

Safety Data Sheet

according to HPR, Schedule 1

Printing date 05/15/2018

Version number 14

Reviewed on 04/11/2018

1 Identification

- **Product identifier**
 - **Trade name: Jowat Primer 406.68**
 - **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
 - **Application of the substance / the mixture** Primer
 - **Uses advised against** Restricted to professional users.
- **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.



GHS08 Health hazard

Reproductive Toxicity - Category 2

H361 Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Repeated Exposure - Category 2

H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Skin Irritation - Category 2

H315 Causes skin irritation.

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).

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· Hazard pictograms



GHS02 GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

toluene
butanone
ethyl acetate
acetone

· Hazard statements

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H361 Suspected of damaging fertility or the unborn child.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.

· 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.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
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.

· Hazard description:

· Workplace Hazardous Materials Information System (WHMIS classification)

B2 - Flammable liquid
D2A - Very toxic material causing other toxic effects



· Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.
· vPvB: Not applicable.

3 Composition/Information on ingredients

· Chemical characterization: Mixtures

· Description: Solvent mixture with additives.

· Dangerous components:

CAS: 78-93-3 RTECS: EL 6475000	butanone	25-<50% w/w
CAS: 108-88-3 RTECS: XS 5250000	toluene	25-<50% w/w
CAS: 141-78-6 RTECS: AH 5425000	ethyl acetate	10-<25% w/w
CAS: 67-64-1 RTECS: AL 3150000	acetone	1-<5% w/w

· SVHC Not applicable.

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- **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**

- **General information**

Immediately remove any clothing soiled by the product.

Remove exposed persons outside into open air.

- **After inhalation** Supply fresh air; consult physician in case of problems.

- **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**

If swallowed or in case of vomiting, danger of entering the lungs

* 5 Firefighting measures

- **Extinguishing media**

- **Suitable extinguishing agents**

CO₂, sand, extinguishing powder. Do not use water.

Foam

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

- **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

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.

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.

Open and handle containers with care.

Ensure that suitable extractors/ventilation systems are available on processing machines and in the workplace. In the context of the risk assessment, it is necessary to evaluate whether and to what extent protective measures are required. If necessary, a workplace measurement has to be carried out.

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Use only in well-ventilated areas.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Use only in explosion protected area.

Highly volatile, flammable constituents are released during processing.

Fumes can combine with air to form an explosive mixture.

Flammable gas-air mixtures may be formed in empty receptacles.

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

- **Storage**

- **Requirements to be met by storage facilities and containers:**

Store in a cool location.

Prevent any seepage into the ground.

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

- **Further information on storage conditions:**

Protect from frost.

Keep container tightly sealed.

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/m³, 300 ppmLong-term value: 590 mg/m³, 200 ppm

108-88-3 toluene

EL (Canada) Long-term value: 20 ppm

R

EV (Canada) Long-term value: 20 ppm

141-78-6 ethyl acetate

EL (Canada) Long-term value: 150 ppm

EV (Canada) Long-term value: 1,440 mg/m³, 400 ppm

67-64-1 acetone

EL (Canada) Short-term value: 500 ppm

Long-term value: 250 ppm

EV (Canada) Short-term value: 750 ppm

Long-term value: 500 ppm

- **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.

Store protective clothing separately.

Avoid contact with the eyes and skin.

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Do not eat or drink while working.

- **Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation.

Short term filter device:

Filter AX (boiling point < 61 °C); Filter A (boiling point > 60 °C).

Has to be worn only if no adequate extraction system is operating when sprayed.

Filter A/P2

In case of short-term exposure or low concentrations, use respiratory filter device. In case of intensive or longer exposure, use respiratory protection which is independent of the ambient air.

- **Protection of hands:** Impervious gloves

- **Material of gloves** LLDPE gloves

- **Penetration time of glove material**

Please contact the glove manufacturer for the exact time of penetration/resistance level and observe this limit.

- **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:**

Fluorocarbon rubber (Viton)

- **The following materials are unsuitable for gloves:**

Natural rubber, NR

Chloroprene rubber, CR

Leather gloves

Strong gloves

- **Eye protection:**

Tightly sealed goggles.

Safety glasses

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

- **Form:**

Fluid

- **Color:**

According to product specification

- **Odor:**

Characteristic

- **Odor threshold:**

Not determined.

- **pH-value:**

Not determined.

- **Change in condition**

- **Melting point/Melting range:**

undetermined

- **Boiling point/Boiling range:**

76 °C

- **Flash point:**

-4 °C

- **Flammability (solid, gaseous)**

Not applicable.

- **Ignition temperature:**

425 °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.

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· Explosion limits:	
· Lower:	1.2 Vol %
· Upper:	11.5 Vol %
· Vapor pressure at 20 °C:	101 hPa
· Density at 20 °C:	0.9 g/cm ³
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
· Water:	Not miscible or difficult to mix
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· dynamic at 20 °C:	75 mPas
· kinematic:	Not determined.
· Solvent content:	
· Organic solvents:	87.7 %
· Solid content:	12.9 %
· Other information	No further relevant information available.
· VOC - Volatile Organic Compounds	
· European Union	87.74 %
· Switzerland	87.74 %
· U.S.A (less water and less exempts)	789.7 g/l / 6.59 lb/gl

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.
- **Possibility of hazardous reactions**
 - Forms explosive gas mixture with air
 - Develops readily flammable gases / fumes
 - Reacts with strong acids and alkali
 - Used empty containers may contain product gases which form explosive mixtures with air
 - Forms explosive gas mixture with air
 - Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
 - Hydrocarbons
 - 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)

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		34.5 mg/l (rat)
108-88-3 toluene		
Oral	LD50 oral	5,580 mg/kg (rat)
Dermal	LD50 dermal	12,124 mg/kg (rabbit)
Inhalative	LC50 / 4 h	28.1 mg/l (rat)
141-78-6 ethyl acetate		
Oral	LD50 oral	5,620 mg/kg (rabbit)
Dermal	LD50 dermal	18,000 mg/kg (rabbit)
67-64-1 acetone		
Oral	LD50 oral	3,592 mg/kg (rat)
Dermal	LD50 dermal	15,688 mg/kg (rabbit)
Inhalative	LC50 / 4 h	76 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:

Product is suspected to cause birth defects.

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)	
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)	
108-88-3 toluene		
LC50 / 96 h	24 mg/l (rainbow trout)	
EC50 / 48 h	11.5 mg/l (water flea)	
EC50 / 72 h	12 mg/l (green microalgae)	
NOEC	29 mg/l (pseudomonas putida)	
141-78-6 ethyl acetate		
LC50 / 96 h	431 mg/l (zebrafish)	
	230 mg/l (rainbow trout)	
	230 mg/l (fathead minnow)	
LC50 / 48 h	350 mg/l (orfe (ide))	
LC50	200 mg/l (rat)	

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EC50 / 48 h	3,300 mg/l (green algae)
	165 mg/l (water flea)
EC50 / 24 h	724 mg/l (water flea)
EC50	17.9 mg/l (green algae)
67-64-1 acetone	
LC50 / 96 h	5,540 mg/l (rainbow trout)
LC50 / 48 h	7,500 mg/l (orfe (ide))
EC50 / 48 h	8,800 mg/l (water flea)
EC50 / 16 h	1,700 mg/l (activated sludge)
NOEC	3,400 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.
- **Ecotoxicological effects:**

- **Behavior in sewer plants:**

141-78-6 ethyl acetate

EC10 / 16 h | 2,900 mg/l (pseudomonas putida)

- **Additional ecological information:**

- **CSB-value:**

108-88-3 toluene

CSB | 700 mg/g (n.a.)

67-64-1 acetone

CSB | 2,210 mg/g (n.a.)

- **BSB5-value:**

108-88-3 toluene

BSB | 860 mg/g (n.a.)

- **General remarks:**
 - Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
 - Do not allow product to reach ground water, water course or sewage system.
 - Danger to drinking water if even small quantities leak into the ground.
- **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:**
 - Dispose of packaging according to regulations on the disposal of packagings.
 - Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning.
 - Packagings that cannot be cleansed are to be disposed of in the same manner as the product.
 - **Recommended cleaning agent:** Solvent naphtha

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14 Transport information

· UN-Number	UN1133
· DOT, TDG, IMDG, IATA	
· UN proper shipping name	
· DOT	Adhesives
· TDG	1133 Adhesives
· IMDG, IATA	ADHESIVES
· Transport hazard class(es)	
· DOT	
	
· Class	3 Flammable liquids
· Label	3
· TDG (Transport dangerous goods):	
	
· Class	3 (F1) Flammable liquids
· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, TDG, IMDG, IATA	II
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids
· Danger code (Kemler):	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

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· UN "Model Regulation":	UN 1133 ADHESIVES, 3, II
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*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
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108-88-3	toluene
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· **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 %**

78-93-3	butanone
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108-88-3	toluene
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141-78-6	ethyl acetate
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7631-86-9	silicon dioxide, chemically prepared
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67-64-1	acetone
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· **Carcinogen categories**

· **EPA (Environmental Protection Agency)**

butanone	I
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toluene	II
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acetone	I
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· **TLV (Threshold Limit Value established by ACGIH)**

108-88-3	toluene	A4
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67-64-1	acetone	A4
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· **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.

· **Date of preparation / last revision** 05/15/2018 / 13

· **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

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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)
WHMIS: Workplace Hazardous Materials Information System (Canada)
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.**