# Safety Data Sheet
## acc. to OSHA HCS

Printing date 03/09/2015 Reviewed on 03/09/2015

## * 1 Identification

· **Product identifier**
· **Trade name: Jowat Primer 406.00**

· **Article number:** 40600
· **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 SDS:**
Environmental management
Ellen Lange / Tina Friedrich / Jan-Peter Boelcke
Tel. +49 5231 749 218 / 270 / 211
e-mail: umweltmanagement@jowat.de
· **Information provided by department:**
Jowat Corporation
5608 Uwharrie Rd.
Archdale, NC 27263
P.O.Box 1368
High Point, NC 27261
Tel.: +1 336 434-9000
Fax: +1 336 434-9019
E-Mail: info@jowat.com
· **Emergency telephone number:** 1 800 424 9300 (Chemtrec 24 hours service)

## * 2 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Solvent mixture with additives.

| · **Dangerous components:** | | |
|---|---|---|
| CAS: 141-78-6<br>RTECS: AH 5425000 | ethyl acetate | 35-<50% |
| CAS: 67-64-1<br>RTECS: AL 3150000 | acetone | 25 - <35% |
| CAS: 109-99-9 | tetrahydrofuran | 20 - <25% |

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

## * 3 Hazard(s) identification

· **Classification of the substance or mixture**


GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.


GHS07

(Contd. on page 2)

# Safety Data Sheet
acc. to OSHA HCS

Printing date 03/09/2015 Reviewed on 03/09/2015

**Trade name: Jowat Primer 406.00**

(Contd. of page 1)

| | | |
|---|---|---|
| Eye Irrit. 2A | H319 | Causes serious eye irritation. |
| STOT SE 3 | H335-H336 | May cause respiratory irritation. 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:**
ethyl acetate
acetone
tetrahydrofuran
· **Hazard statements**
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
· **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.
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.

· **Classification system**
· **NFPA ratings (scale 0-4)**
Health = 1
Fire = 3
Reactivity = 0
· **HMIS ratings (scale 0-4)**
Health = *1
Flammability = 3
Reactivity = 0

## * 4 First-aid measures

· **General information** 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.

## * 5 Fire-fighting measures

· **Suitable extinguishing agents** CO2, sand, extinguishing powder. Do not use water.

(Contd. on page 3)

# Safety Data Sheet
acc. to OSHA HCS



(Contd. of page 2)

· **For safety reasons unsuitable extinguishing agents**
Water.
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.
· **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.
Do not flush with water or aqueous cleansing agents
· **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.
Open and handle containers with care.
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.
· **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:**
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.



(Contd. on page 4)

# Safety Data Sheet
acc. to OSHA HCS



(Contd. of page 3)

## * 8 Exposure controls/personal protection

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

| · **Components with limit values that require monitoring in the workplace:** | |
|---|---|
| **141-78-6 ethyl acetate** | |
| PEL | Long-term value: 1400 mg/m³, 400 ppm |
| REL | Long-term value: 1400 mg/m³, 400 ppm |
| TLV | Long-term value: 1440 mg/m³, 400 ppm |
| **67-64-1 acetone** | |
| PEL | Long-term value: 2400 mg/m³, 1000 ppm |
| REL | Long-term value: 590 mg/m³, 250 ppm |
| TLV | Short-term value: (1782) NIC-1187 mg/m³, (750) NIC-500 ppm<br>Long-term value: (1188) NIC-594 mg/m³, (500) NIC-250 ppm<br>BEI |
| **109-99-9 tetrahydrofuran** | |
| PEL | Long-term value: 590 mg/m³, 200 ppm |
| REL | Short-term value: 735 mg/m³, 250 ppm<br>Long-term value: 590 mg/m³, 200 ppm |
| TLV | Short-term value: 295 mg/m³, 100 ppm<br>Long-term value: 147 mg/m³, 50 ppm<br>Skin |

| · **Ingredients with biological limit values:** | |
|---|---|
| **67-64-1 acetone** | |
| BEI | 50 mg/L<br>Medium: urine<br>Time: end of shift<br>Parameter: Acetone (nonspecific) |
| **109-99-9 tetrahydrofuran** | |
| BEI | 2 mg/L<br>Medium: urine<br>Time: end of shift<br>Parameter: Tetrahydrofuran |

· **Additional information:**
The lists that were valid at the date of compilation of this SDS were used as basis.

· **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:**
Use suitable respiratory protective device in case of insufficient ventilation.
Filter AX (boining 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
Short term filter device:

· **Protection of hands:** Impervious gloves

· **Material of gloves** Butyl rubber, BR

(Contd. on page 5)

**Safety Data Sheet**
**acc. to OSHA HCS**

Printing date 03/09/2015 Reviewed on 03/09/2015

**Trade name: Jowat Primer 406.00**

(Contd. of page 4)

· **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)
Nitrile rubber, NBR
· **The following materials are unsuitable for gloves:**
Natural rubber, NR
Chloroprene rubber, CR
Leather gloves
Strong gloves
· **Eye protection:** Tightly sealed goggles.

* 
## 9 Physical and chemical properties

| | |
|---|---|
| · **General Information** | |
| · **Appearance:** | |
| · **Form:** | Fluid |
| · **Color:** | According to product specification |
| · **Odor:** | Characteristic |
| · **Odour threshold:** | Not determined. |
| · **pH-value:** | Not determined. |
| · **Change in condition** | |
| · **Melting point/Melting range:** | undetermined |
| · **Boiling point/Boiling range:** | 56 °C (133 °F) |
| · **Flash point:** | -18 °C (-0 °F) |
| · **Flammability (solid, gaseous)** | Not applicable. |
| · **Ignition temperature:** | 230 °C (446 °F) |
| · **Decomposition temperature:** | Not determined. |
| · **Self-igniting:** | Product is not selfigniting. |
| · **Danger of explosion:** | May form explosive peroxides. |
| · **Explosion limits:** | |
| · **Lower:** | 1.5 Vol % |
| · **Upper:** | 13.0 Vol % |
| · **Vapor pressure at 20 °C (68 °F):** | 247 hPa (185 mm Hg) |
| · **Density at 20 °C (68 °F):** | 0.9 g/cm³ (7.511 lbs/gal) |
| · **Relative density** | Not determined. |
| · **Vapor density** | Not determined. |
| · **Evaporation rate** | Not determined. |

(Contd. on page 6)

**Safety Data Sheet**
**acc. to OSHA HCS**

Printing date 03/09/2015 Reviewed on 03/09/2015

**Trade name: Jowat Primer 406.00**

(Contd. of page 5)

| | |
|---|---|
| · **Solubility in / Miscibility with** | |
| · **Water:** | Not miscible or difficult to mix |
| · **Partition coefficient (n-octanol/water):** | Not determined. |
| · **Viscosity:** | |
| · **dynamic at 20 °C (68 °F):** | 140 mPas |
| · **kinematic:** | Not determined. |
| · **Solvent content:** | |
| · **Organic solvents:** | 84.8 % |
| · **Solid content:** | 15.2 % |
| · **Other information** | No further relevant information available. |
| · **VOC - Volatile Organic Compounds** | |
| · **European Union** | 84.76 % |
| · **Switzerland** | 84.76 % |
| · **U.S.A (less water and less exempts)** | 751.6 g/l / 6.27 lb/gl |

## * 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** Hydrocarbons

## * 11 Toxicological information

· **Acute toxicity:**

| · **LD/LC50 values that are relevant for classification:** | | |
|---|---|---|
| **141-78-6 ethyl acetate** | | |
| Oral | LD50 oral | 5600 mg/kg (rabbit) |
| Dermal | LD50 dermal | 18000 mg/kg (rabbit) |
| Inhalative | LC50 / 4 h | 29.3 mg/l (rat) |
| **67-64-1 acetone** | | |
| Oral | LD50 oral | 5800 mg/kg (rat) |
| Dermal | LD50 dermal | 15688 mg/kg (rabbit) |
| Inhalative | LC50 / 4 h | 76 mg/l (rat) |
| **109-99-9 tetrahydrofuran** | | |
| Oral | LD50 oral | 1650 mg/kg (rat) |
| Inhalative | LC50 / 4 h | 54 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

(Contd. on page 7)

# Safety Data Sheet
acc. to OSHA HCS



(Contd. of page 6)

· **Carcinogenic categories**

| · IARC (International Agency for Research on Cancer) | |
|---|---|
| silicon dioxide, chemically prepared | 3 |

| · NTP (National Toxicology Program) |
|---|
| None of the ingredients is listed. |

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

## * 12 Ecological information

| · Aquatic toxicity: | |
|---|---|
| **141-78-6 ethyl acetate** | |
| EC50 | 17.9 mg/l (desmodesmus subspicatus) |
| EC50 / 24 h | 724 mg/l (daphnia magna) |
| EC50 / 48 h | 3300 mg/l (desmodesmus subspicatus) |
| | 717 mg/l (daphnia magna) |
| LC50 | 200 mg/l (rat) |
| LC50 / 48 h | 350 mg/l (leuciscus idus) |
| LC50 / 96 h | 431 mg/l (brachydanio rerio) |
| | 230 mg/l (oncorhynchus mykiss) |
| | 455 mg/l (pimephales promelas) |
| **67-64-1 acetone** | |
| EC50 / 16 h | 1700 mg/l (activated sludge) |
| EC50 / 48 h | 8800 mg/l (daphnia magna) |
| LC50 / 48 h | 7500 mg/l (leuciscus idus) |
| LC50 / 96 h | 5540 mg/l (oncorhynchus mykiss) |
| NOEC | 3400 mg/l (desmodesmus subspicatus) |
| **109-99-9 tetrahydrofuran** | |
| EC50 / 24 h | > 10000 mg/l (daphnia magna) |
| EC50 / 3 h | 460 mg/l (activated sludge) |
| IC50 / 48 h | 3700 mg/l (scenedesmus subspicatus) |
| LC50 / 48 h | 3485 mg/l (daphnia magna) |
| LC50 / 96 h | 2160 mg/l (pimephales promelas) |

· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Ecotoxical effects:**

| · Behavior in sewer plants: | |
|---|---|
| **141-78-6 ethyl acetate** | |
| EC10 / 16 h | 2900 mg/l (pseudomonas putida) |

· **Additional ecological information:**

| · CSB-value: | |
|---|---|
| **67-64-1 acetone** | |
| CSB | 2210 mg/g (n.a.) |

(Contd. on page 8)

**Safety Data Sheet**
**acc. to OSHA HCS**

Printing date 03/09/2015 Reviewed on 03/09/2015

**Trade name: Jowat Primer 406.00**

(Contd. of page 7)

· **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.

## * 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

## * 14 Transport information

| | |
|---|---|
| · **UN-Number** | |
| · **DOT, ADR, IMDG, IATA** | UN1133 |
| · **UN proper shipping name** | |
| · **DOT** | Adhesives |
| · **ADR** | 1133 Adhesives |
| · **IMDG, IATA** | ADHESIVES |
| · **Transport hazard class(es)** | |
| · **DOT** |  |
| · **Class** | 3 Flammable liquids |
| · **Label** | 3 |
| · **ADR** |  |
| · **Class** | 3 (F1) Flammable liquids |
| · **Label** | 3 |
| · **IMDG, IATA** |  |
| · **Class** | 3 Flammable liquids |
| · **Label** | 3 |

(Contd. on page 9)

# Safety Data Sheet
acc. to OSHA HCS

Printing date 03/09/2015 Reviewed on 03/09/2015

**Trade name: Jowat Primer 406.00**

(Contd. of page 8)

| | |
|---|---|
| · **Packing group** | |
| · **DOT, ADR, IMDG, IATA** | II |
| · **Environmental hazards:** | Not applicable. |
| · **Special precautions for user** | Warning: Flammable liquids |
| · **Danger code (Kemler):** | 33 |
| · **EMS Number:** | F-E,S-D |
| · **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** | Not applicable. |
| · **Transport/Additional information:** | |
| · **DOT** | |
| · **Quantity limitations** | On passenger aircraft/rail: 5 L<br>On cargo aircraft only: 60 L |
| · **ADR** | |
| · **Excepted quantities (EQ)** | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · **IMDG** | |
| · **Limited quantities (LQ)** | 5L |
| · **Excepted quantities (EQ)** | Code: E2<br>Maximum net quantity per inner packaging: 30 ml<br>Maximum net quantity per outer packaging: 500 ml |
| · **UN "Model Regulation":** | UN1133, Adhesives, 3, II |

## * 15 Regulatory information

· **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

· **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

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

All ingredients are listed.

· **Proposition 65**

· **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity**

None of the ingredients is listed.

· **Canadian ingredient disclosure list**

· **Limit 0,1 %**

None of the ingredients is listed.

(Contd. on page 10)

# Safety Data Sheet
## acc. to OSHA HCS



(Contd. of page 9)

| · **Limit 1 %** | |
|---|---|
| 141-78-6 | ethyl acetate |
| 67-64-1 | acetone |
| 109-99-9 | tetrahydrofuran |
| 7631-86-9 | silicon dioxide, chemically prepared |

· **Cancerogenity categories**

| · **EPA (Environmental Protection Agency)** | |
|---|---|
| acetone | I |
| tetrahydrofuran | SC |

| · **TLV (Threshold Limit Value established by ACGIH)** | | |
|---|---|---|
| 67-64-1 | acetone | A4 |
| 109-99-9 | tetrahydrofuran | A3 |

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

## 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** 03/09/2015 / 10

· **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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

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