

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

- Trade name **Jowatac 476.64**
- UFI: V5GE-R1J2-V00V-YE8M

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

No further relevant information available.

- **Application of the substance / the mixture** Adhesives
- **Uses advised against** Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Jowat SE
Ernst-Hilker-Str. 10 - 14; D - 32758 Detmold
Fon +49 (0)5231 749 0
e-mail: info@jowat.de
www.jowat.de

Department issuing data specification sheet:

Environmental management
Tel. +49 5231 749 -218 / -211 / -5460 / -5374
e-mail: umweltmanagement@jowat.de

Department providing the information:

Environmental management
Fon: +49 5231 749 211
e-mail: umweltmanagement@jowat.de

1.4 Emergency telephone number:

InfraServ Hoechst - Gefahrenabwehrmeldezentrale
D - 65926 Frankfurt
Fon: +49 (0)69-305-6418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008



GHS02 flame

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- Hazard pictograms



GHS02 GHS07

- **Signal word** Danger

- **Hazard statements**

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 1)

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

- **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].

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 CO₂, powder or water spray to extinguish.

P501 Dispose of contents / container to approved waste disposal or recycling in accordance with national regulations.

- **Additional information:**

Contains isopropenylbenzene. May produce an allergic reaction.

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Determination of endocrine-disrupting properties**

68512-30-1	isopropenylbenzene	List II
85-60-9	6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol	List II

* SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

- **Description:**

Adhesive.

Styrene-butadiene-styrene rubber

Rubber compounding

Thermoplastic rubber

- **Dangerous components:**

CAS: 64742-49-0 EC number: 926-605-8 registration number: 01-2119486291-36	Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5 % n-hexane Consisting of: 110-54-3 n-hexane (<5%) Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	15-<20%
CAS: 67-64-1 EINECS: 200-662-2 registration number: 01-2119471330-49	acetone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	15-<20%
CAS: 64-17-5 EINECS: 200-578-6 registration number: 01-2119457610-43	ethanol Flam. Liq. 2, H225; Eye Irrit. 2, H319 Specific concentration limit: Eye Irrit. 2; H319: C ≥ 50 %	1-<2.5%
CAS: 68512-30-1 EINECS: 270-966-8 registration number: 01-2119555274-38	isopropenylbenzene Skin Irrit. 2, H315; Skin Sens. 1B, H317; Aquatic Chronic 3, H412	0.5-<1%
CAS: 110-54-3 EINECS: 203-777-6 registration number: 01-2119480412-44	n-hexane Flam. Liq. 2, H225; Repr. 2, H361f; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336 Specific concentration limit: STOT RE 2; H373: C ≥ 5 %	≥0.25-<0.5%

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 2)

CAS: 85-60-9 EINECS: 201-618-5 registration number: 01-2119951043-47	6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol Aquatic Chronic 3, H412	<0.5%
--	--	-------

- **SVHC** Not applicable.

- **Additional information**

If any R-phrases (risk-phrases) are listed, please refer for the exact wording to section 16.

Contains < 0.1 % benzene (Note P)

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information**

Instantly remove any clothing soiled by the product.

Take affected persons into the open air.

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

- **After skin contact** Instantly wash with water and soap and rinse thoroughly.

- **After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult physician.

- **After swallowing** In case of persistent symptoms consult physician.

- **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- **4.3 Indication of any immediate medical attention and special treatment needed**

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

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents**

Foam extinguishing agent

CO₂, extinguishing powder or water jet. Fight larger fire with alcohol-resistant foam.

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

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

Can be released in case of fire

Carbon monoxide (CO)

- **5.3 Advice for firefighters**

- **Protective equipment:**

Wear self-contained breathing apparatus.

Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

- **6.2 Environmental precautions:**

Do not allow product to reach sewage system or water bodies.

Prevent material from reaching sewage system, holes and cellars.

Inform respective authorities in case product reaches water or sewage system.

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

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

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

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **6.4 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 information on disposal.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 3)

* SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed containers.

Open and handle container with care.

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-proof area.

Highly volatile, flammable constituents are released during processing.

Fumes can combine with air to form an explosive mixture.

Flammable mixtures may be formed in empty containers.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage

· Requirements to be met by storerooms and containers:

Store in cool location.

Prevent any penetration into the ground.

· Information about storage in one common storage facility: Not required.

· Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with critical values that require monitoring in the workplace:

67-64-1 acetone

IOELV (European Union) | Long-term value: 1210 mg/m³, 500 ppm

110-54-3 n-hexane

IOELV (European Union) | Long-term value: 72 mg/m³, 20 ppm

· Regulatory information IOELV (European Union): (EU) 2019/1831

· Worker

64742-49-0 Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5 % n-hexane

Dermal | DNEL w | 13,964 mg/kg bw/day (long-term, systemic effects)

Inhalative | DNEL w | 5,306 mg/m³ (long-term, systemic effects)

67-64-1 acetone

Dermal | DNEL w | 186 mg/kg bw/day (long-term, systemic effects)

Inhalative | DNEL w | 2,420 mg/m³ (acute, systemic effects)1,210 mg/m³ (long-term, systemic effects)

64-17-5 ethanol

Dermal | DNEL w | 343 mg/kg bw/day (long-term, systemic effects)

Inhalative | DNEL w | 1,900 mg/m³ (acute, local effects)950 mg/m³ (long-term, systemic effects)

68512-30-1 isopropenylbenzene

Dermal | DNEL w | 16.4 mg/kg bw/day (long-term, systemic effects)

Inhalative | DNEL w | 57 mg/m³ (long-term, systemic effects)

110-54-3 n-hexane

Dermal | DNEL w | 11 mg/kg bw/day (long-term, systemic effects)

Inhalative | DNEL w | 75 mg/m³ (long-term, systemic effects)

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 4)

· Consumer		
64742-49-0 Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5 % n-hexane		
Oral	DNEL c	1,301 mg/kg bw/day (long-term, systemic effects)
Dermal	DNEL c	1,377 mg/kg bw/day (long-term, systemic effects)
Inhalative	DNEL c	1,131 mg/m ³ (long-term, systemic effects)
67-64-1 acetone		
Oral	DNEL c	62 mg/kg bw/day (long-term, systemic effects)
Dermal	DNEL c	62 mg/kg bw/day (long-term, systemic effects)
Inhalative	DNEL c	200 mg/m ³ (long-term, systemic effects)
64-17-5 ethanol		
Oral	DNEL c	87 mg/kg bw/day (long-term, systemic effects)
Dermal	DNEL c	206 mg/kg bw/day (long-term, systemic effects)
Inhalative	DNEL c	950 mg/m ³ (acute, local effects) 114 mg/m ³ (long-term, systemic effects)
68512-30-1 isopropenylbenzene		
Oral	DNEL c	4 mg/kg bw/day (long-term, systemic effects)
Dermal	DNEL c	8 mg/kg bw/day (long-term, systemic effects)
Inhalative	DNEL c	28 mg/m ³ (long-term, systemic effects)
110-54-3 n-hexane		
Oral	DNEL c	4 mg/kg bw/day (long-term, systemic effects)
Dermal	DNEL c	5.3 mg/kg bw/day (long-term, systemic effects)
Inhalative	DNEL c	16 mg/m ³ (long-term, systemic effects)
· predicted no-effect concentration (PNECs)		
67-64-1 acetone		
	PNEC water	10.6 mg/l (freshwater) 21 mg/l (intermittent releases) 1.06 mg/l (marine water) 100 mg/l (STP (sewage treatment plant))
	PNEC sediment	30.4 mg/kg (sediment, freshwater) 3.04 mg/kg (sediment, marine water)
	PNEC soil	29.5 mg/kg (soil)
64-17-5 ethanol		
Oral	PNEC oral	720 mg/kg food (n.a.)
	PNEC water	0.96 mg/l (freshwater) 2.75 mg/l (intermittent releases) 0.79 mg/l (marine water) 580 mg/l (STP (sewage treatment plant))
	PNEC sediment	3.6 mg/kg (sediment, freshwater) 2.9 mg/kg (sediment, marine water)
68512-30-1 isopropenylbenzene		
	PNEC water	0.014 mg/l (freshwater) 0.14 mg/l (intermittent releases) 0.0014 mg/l (marine water) 2.4 mg/l (STP (sewage treatment plant))
	PNEC sediment	52.9 mg/kg (sediment, freshwater) 5.3 mg/kg (sediment, marine water)
	PNEC soil	10.5 mg/kg (soil)

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 5)

· **Additional information:** The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see item 7.
- **Additional information about design of technical systems:** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
 - **General protective and hygienic measures**
Standard precautionary measures for handling chemicals are to be observed.
Keep away from food, beverages and animal feed.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat or drink while working.
 - **Breathing equipment:**
Use breathing protection in case of insufficient ventilation (EN 14387).
Short term filter device:
Filter AX (boiling point < 61 °C); Filter A (boiling point > 60 °C).
Only when applied by spray methods, if no adequate extraction system is in place (EN 149).
Filter A/P2
 - **Hand protection** Impervious gloves (EN 374).
 - **Material of gloves** LLDPE gloves
 - **Penetration time of glove material**
The exact time limit until penetration has to be found out from the manufacturer of the protective gloves; please ensure that this value is not exceeded.
 - **Gloves made of the following material are suitable for the permanent contact with this material in work areas which do not have an above-average risk of injury (e.g. laboratories):**
LLDPE gloves
 - **For the permanent contact gloves made of the following materials are suitable:** LLDPE gloves
 - **For permanent contact of max. 15 minutes, gloves made of the following materials are suitable:**
Butyl rubber, BR
 - **To protect against splashing, gloves made of the following materials are suitable:**
Chloroprene rubber, CR
 - **Not suitable are gloves made of the following materials:**
Leather gloves
Strong gloves
 - **Eye/face protection**
Safety glasses recommended during refilling and spraying.
Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

- **General Information**
 - **Physical state** Fluid
 - **Colour:** According to product specification
 - **Smell:** Characteristic
 - **Odour threshold:** Not determined.
 - **Melting point/freezing point:** Not determined
 - **Boiling point or initial boiling point and boiling range** 55 °C
 - **Flammability** Highly flammable.
 - **Lower and upper explosion limit**
 - **Lower:** 1.1 Vol %
 - **Upper:** 13 Vol %
 - **Flash point:** -21 °C
 - **Ignition temperature:** >200 °C
 - **Decomposition temperature:** Not determined.
 - **pH** Not determined.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 6)

<ul style="list-style-type: none"> · Viscosity: <ul style="list-style-type: none"> · Kinematic viscosity · dynamic at 20 °C: · Solubility <ul style="list-style-type: none"> · Water: · Partition coefficient n-octanol/water (log value) · Vapour pressure at 20 °C: · Density and/or relative density <ul style="list-style-type: none"> · Density at 20 °C · Relative density · Vapour density 	<ul style="list-style-type: none"> Not determined. 850 mPas Not miscible or difficult to mix Not determined. 247 hPa 0.92 g/cm³ Not determined. Not determined.
<ul style="list-style-type: none"> · 9.2 Other information <ul style="list-style-type: none"> · VOC - Volatile Organic Compounds <ul style="list-style-type: none"> · European Union · Switzerland · U.S.A (less water and less exempts) · Appearance: <ul style="list-style-type: none"> · Form: · Important information on protection of health and environment, and on safety. <ul style="list-style-type: none"> · Spontaneous combustion: · Explosive properties: · Solvent content: <ul style="list-style-type: none"> · Organic solvents: · Solid content: · Change in condition <ul style="list-style-type: none"> · Evaporation rate 	<ul style="list-style-type: none"> 38.46 % 38.46 % 239.0 g/l / 1.99 lb/gal Fluid Product does not undergo spontaneous combustion. Product is not explosive. However, formation of explosive air/steam mixtures is possible. 38.5 % 62.0 % Not determined.
<ul style="list-style-type: none"> · Information with regard to physical hazard classes <ul style="list-style-type: none"> · Explosives · Flammable gases · Aerosols · Oxidising gases · Gases under pressure · Flammable liquids · Flammable solids · Self-reactive substances and mixtures · Pyrophoric liquids · Pyrophoric solids · Self-heating substances and mixtures · Substances and mixtures, which emit flammable gases in contact with water · Oxidising liquids · Oxidising solids · Organic peroxides · Corrosive to metals · Desensitised explosives 	<ul style="list-style-type: none"> not applicable not applicable not applicable not applicable not applicable Highly flammable liquid and vapour. not applicable

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 7)

- **10.3 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 atomised

- **10.4 Conditions to avoid** No further relevant information available.

- **10.5 Incompatible materials:** No further relevant information available.

- **10.6 Hazardous decomposition products:**

Hydrocarbons
 Inflammable gases/vapours
 Carbon monoxide and carbon dioxide

* SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

64742-49-0 Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5 % n-hexane

Oral	LD50 oral	16,750 mg/kg (rat)
Dermal	LD50 dermal	>8,000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	43.7 mg/l (rat)

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)

64-17-5 ethanol

Oral	LD50 oral	6,200 mg/kg (rat)
Dermal	LD50 dermal	20,000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	95.6 mg/l (rat)

110-54-3 n-hexane

Oral	LD50 oral	28,710 mg/kg (rat)
------	-----------	--------------------

85-60-9 6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol

Oral	LD50 oral	7,940 mg/kg (rat)
Dermal	LD50 dermal	7,940 mg/kg (rabbit)

- **to the skin:** Causes skin irritation.

- **to the eye:** Causes serious eye irritation.

- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

- **Carcinogenicity** Based on available data, the classification criteria are not met.

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **STOT-single exposure** Based on available data, the classification criteria are not met.

- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

68512-30-1	isopropenylbenzene	List II
85-60-9	6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol	List II

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 8)

* SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

64742-49-0 Hydrocarbons, C6-C7, isoalkanes, cyclics, < 5 % n-hexane

LC50 / 96 h	9.776 mg/l (rainbow trout)
LC50 / 48 h	10 mg/l (orfe (ide))
EC50 / 48 h	17.06 mg/l (water flea)
EC50 / 72 h	75.6 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)

64-17-5 ethanol

LC50 / 96 h	10,000 mg/l (zebrafish)
LC50 / 48 h	10,000 mg/l (orfe (ide))
EC50 / 48 h	9,268 mg/l (water flea)

68512-30-1 isopropenylbenzene

LC50 / 96 h	25.8 mg/l (orfe (ide))
LC50 / 48 h	14-51 mg/l (water flea)
EC50 / 72 h	15 mg/l (green algae)

110-54-3 n-hexane

LC0	150-4,280 mg/l (orfe (ide))
EC50 / 48 h (static)	45 mg/l (water flea)
EC50 / 24 h	>50->1,000 mg/l (water flea)

85-60-9 6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol

LC50 / 96 h (static)	1,100 mg/l (fathead minnow)
EC50 / 48 h (static)	110 mg/l (water flea)
EC50 / 72 h	1,100 mg/l (green microalgae)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
 - **Remark:** Harmful to fish
 - **Additional ecological information:**

· CSB-value:

67-64-1 acetone

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

· General notes:

- Water hazard class 2 (Self-assessment): hazardous for water.
- Do not allow product to reach ground water, water bodies or sewage system.
- Danger to drinking water if even small quantities leak into soil.
- The product contains materials that are harmful to the environment.

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 9)

Harmful to aquatic organisms

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

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

Hand over to disposers of hazardous waste.

· European waste catalogue

08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances
15 01 10*	packaging containing residues of or contaminated by hazardous substances

· Adhesives, dry, solid mass

Smaller quantities can be disposed with household garbage.

Waste disposal key number 20 01 28: paint, inks, adhesives and resins other than those mentioned in 20 01 27.

· Uncleaned containers/packaging material:

· Recommendation:

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

Packaging can be reused or recycled after cleaning.

Dispose of packaging according to regulations on the disposal of packagings.

Empty contaminated packagings 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.

· Recommended cleaning agent: Solvent naphtha

· Waste disposal key number:

Packaging with uncured adhesive residues:

15 01 10* - Packaging containing residues of dangerous substances or contaminated by dangerous substances.

Packaging with cured adhesive residues:

15 01 02 - Plastic packaging

15 01 04 - Metal packaging

15 01 05 - composite packaging.

SECTION 14: Transport information

· 14.1 UN number or ID number

· ADR, IMDG, IATA

UN1133

· 14.2 UN proper shipping name

· ADR

1133 ADHESIVES

1133 KLEBSTOFFE

· IMDG, IATA

ADHESIVES

· 14.3 Transport hazard class(es)

· ADR



· Class

3 (F1) Flammable liquids.

(Contd. on page 11)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 10)

· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	
· Warning:	Flammable liquids.
· Kemler Number:	33
· EMS Number:	F-E, S-D
· Stowage Category	B
· 14.7 Maritime transport in bulk according to IMO instruments	
Not applicable.	
· Transport/Additional information:	
· ADR	
· 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
· Transport category	2
· Tunnel restriction code	D/E
· 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

SECTION 15: Regulatory information

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

· Directive 2012/18/EU

- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

· REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)

None of the ingredients is listed.

· LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)

None of the ingredients is listed.

· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

(Contd. on page 12)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 11)

· Regulation (EU) No 649/2012 (PIC)			
None of the ingredients is listed.			
· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II			
None of the ingredients is listed.			
· REGULATION (EU) 2019/1148			
· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))			
None of the ingredients is listed.			
· Annex II - REPORTABLE EXPLOSIVES PRECURSORS			
67-64-1	acetone	15-<20%	
· Regulation (EC) No 273/2004 on drug precursors			
67-64-1	acetone	3	
· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors			
67-64-1	acetone	3	15-<20%

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

These data are based on our present knowledge. 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.

· **Relevant phrases**

- H225 Highly flammable liquid and vapour.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H361f Suspected of damaging fertility.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- EUH066 Repeated exposure may cause skin dryness or cracking.

· **Date of previous version:** 06.11.2021

· **Version number of previous version:** 23

· **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 relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 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)
 PNEC: Predicted No-Effect Concentration (REACH)
 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
 Flam. Liq. 2: Flammable liquids – Category 2
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 Skin Sens. 1B: Skin sensitisation – Category 1B

(Contd. on page 13)

Safety data sheet
according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· * **Data modified in comparison to the previous version.**

(Contd. from page 12)

(Contd. on page 14)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 13)

Annex: Exposure scenario 1

- **Short title of the exposure scenario**
 - **Sector of Use** SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
 - **Product category** PC1 Adhesives, sealants
 - **Process category**
 - PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 - PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
 - PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
 - PROC4 Chemical production where opportunity for exposure arises
 - PROC5 Mixing or blending in batch processes
 - PROC7 Industrial spraying
 - PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
 - PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
 - PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
 - PROC10 Roller application or brushing
 - PROC13 Treatment of articles by dipping and pouring
 - PROC15 Use as laboratory reagent
 - **Environmental release category**
 - ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use** Customary application according to section 1.
 - **Duration and frequency**
 - 5 workdays/week.
 - 8hrs (full working shift).
 - **Worker** 8hrs (full working shift).
 - **Environment**
 - The product must not enter the sewage system or the aquatic environment.
 - Do not allow contact to soil, surface water and ground water.
- **Physical parameters**
 - The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.
 - **Physical state** Fluid
 - **Concentration of the substance in the mixture** The substance is main component.
 - **Used amount per time or activity** 8 tons per day
- **Other operational conditions** Observe the standard safety regulations when handling chemicals
 - **Other operational conditions affecting environmental exposure**
 - Observe section 6 of the Safety Data Sheet (Accidental release measures).
 - High temperatures promote emission.
 - The product must not get in contact with soil, surface water and ground water before complete hardening.
 - **Other operational conditions affecting worker exposure**
 - Avoid contact with eyes.
 - Take precautionary measures against static discharge.
 - Keep away from sources of ignition - No smoking.
 - **Other operational conditions affecting consumer exposure** No special measures required.
 - **Other operational conditions affecting consumer exposure during the use of the product** Not applicable.
- **Risk management measures**
 - **Worker protection**
 - Instantly remove any clothing soiled by the product.
 - Take affected persons into the open air.

(Contd. on page 15)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 14)

- **Organisational protective measures**
Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.
- **Technical protective measures**
Provide explosion-proof electrical equipment.
Ensure that suitable extractors are available on processing machines.
- **Personal protective measures**
Use breathing protection in case of insufficient ventilation (EN 14387).
Short term filter device:
Filter AX (boiling point < 61 °C); Filter A (boiling point > 60 °C).
Only when applied by spray methods, if no adequate extraction system is in place (EN 149).
Filter A/P2
Impervious gloves (EN 374).
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes.
Tightly sealed safety glasses (EN 166).
- **Measures for consumer protection** Ensure adequate labelling.
- **Environmental protection measures** Keep product waste away from uncontaminated waste.
 - **Water** Do not allow to reach ground water, water bodies or sewage system.
 - **Soil** Avoid contact with soil and / or ground water during the application.
 - **Notes** In case of unintended release of the product: See section 6 of the Safety Data Sheet.
- **Disposal measures** Ensure that waste is collected and contained.
 - **Disposal procedures**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
 - **Waste type**
Liquid product residues
Partially emptied and uncleaned packaging
- **Exposure estimation**
 - **Worker (oral)** No significant oral exposure
 - **Worker (dermal)** The calculated value is smaller than the DNEL.
 - **Worker (inhalation)** The calculated value is smaller than the DNEL.
 - **Environment**
Water: No exposure
Soil: No exposure
Purification plant: No exposure
 - **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

(Contd. on page 16)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 15)

Annex: Exposure scenario 2

- **Short title of the exposure scenario**
- **Sector of Use**
 - SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Product category** PC1 Adhesives, sealants
- **Process category**
 - PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 - PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
 - PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
 - PROC4 Chemical production where opportunity for exposure arises
 - PROC5 Mixing or blending in batch processes
 - PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
 - PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
 - PROC10 Roller application or brushing
 - PROC11 Non industrial spraying
 - PROC13 Treatment of articles by dipping and pouring
 - PROC15 Use as laboratory reagent
 - PROC19 Manual activities involving hand contact
- **Environmental release category**
 - ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
 - ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)
- **Description of the activities / processes covered in the Exposure Scenario**

See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use** Customary application according to section 1.
 - **Duration and frequency**
 - Less than 1 hr.
 - 5 workdays/week.
 - **Worker** Regular use with exposure up to 1 hr. per workday.
 - **Environment** The product must not enter the sewage system or the aquatic environment.
- **Physical parameters**

The data on the physical - chemical properties in the Exposure Scenario is based on the properties of the preparation.

 - **Physical state** Fluid
 - **Concentration of the substance in the mixture** The substance is main component.
 - **Used amount per time or activity** 0.9 kg per day
- **Other operational conditions** Observe the standard safety regulations when handling chemicals
- **Other operational conditions affecting environmental exposure**

Observe section 6 of the Safety Data Sheet (Accidental release measures).

The product must not get in contact with soil, surface water and ground water before complete hardening.

High temperatures promote emission.
- **Other operational conditions affecting worker exposure**
 - Indoor application.
 - Outdoor application.
 - Avoid contact with eyes.
 - Take precautionary measures against static discharge.
 - Keep away from sources of ignition - No smoking.
- **Other operational conditions affecting consumer exposure** No special measures required.
- **Other operational conditions affecting consumer exposure during the use of the product** Not applicable.
- **Risk management measures**
 - **Worker protection**
 - Instantly remove any clothing soiled by the product.
 - Take affected persons into the open air.

(Contd. on page 17)

Safety data sheet

according to 1907/2006/EC, Article 31; (EU) 2020/878

Printing date 21.12.2022

Version number 24 (replaces version 23)

Revision: 21.12.2022

Trade name Jowatac 476.64

(Contd. from page 16)

- **Organisational protective measures**
 - Provide Internal Plant Instruction.
 - Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.
- **Technical protective measures**
 - Provide explosion-proof electrical equipment.
 - Ensure that suitable extractors are available on processing machines.
- **Personal protective measures**
 - Do not inhale gases / fumes / aerosols.
 - Avoid contact with the eyes.
 - Tightly sealed safety glasses (EN 166).
- **Measures for consumer protection** Ensure adequate labelling.
- **Environmental protection measures** Keep product waste away from uncontaminated waste.
 - **Water** Do not allow to reach ground water, water bodies or sewage system.
 - **Soil** Avoid contact with soil and / or ground water during the application.
 - **Notes** In case of unintended release of the product: See section 6 of the Safety Data Sheet.
- **Disposal measures** Ensure that waste is collected and contained.
 - **Disposal procedures**
 - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
 - **Waste type**
 - Partially emptied and uncleaned packaging
 - Liquid product residues
- **Exposure estimation**
 - **Worker (oral)** No significant oral exposure
 - **Worker (dermal)** The calculated value is smaller than the DNEL.
 - **Worker (inhalation)** The calculated value is smaller than the DNEL.
 - **Environment** The calculated value is smaller than the PNEC.
 - **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.