

# SAFETY DATA SHEET



Jotun Protects Property

## Resist 18 WF Comp A

SDS Number: AA00319-0000000314

In accordance with the Standard for Classification and Labeling of Chemical Substance and Safety Data Sheet, Article 10 Paragraph 1

### Section 1. Chemical product and company identification

- A. Product name** : Resist 18 WF Comp A  
**Product code** : 1491  
**Product description** : Waterborne paint.

**B. Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses**

Use in coatings - Industrial use

- C. Manufacturer** : Chokwang Jotun Ltd.  
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Gangseo-gu, Busan  
South Korea  
Tel: +82 51 797 6000  
Fax: +82 51 711 7735  
SDSJotun@jotun.com
- Emergency telephone number** : H.G.LEE Chokwang Jotun Ltd.  
Tel: +82 51 797 6000

### Section 2. Hazards identification

- A. Hazard classification** : SKIN SENSITISATION - Category 1  
This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

**B. GHS label elements, including precautionary statements**

**Symbol** :



**Signal word** : Warning.

**Hazard statements** : H317 - May cause an allergic skin reaction.

**Precautionary statements**

**Prevention** : P280 - Wear protective gloves.  
P261 - Avoid breathing vapour.  
P272 - Contaminated work clothing should not be allowed out of the workplace.

**Response** : P362 + P364 - Take off contaminated clothing and wash it before reuse.  
P302 + P352 - IF ON SKIN: Wash with plenty of water.  
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

C.

## Section 2. Hazards identification

**Other hazards which do not result in classification** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture  
**Other means of identification** : Not available.

Ingredient name	Common name	Identifiers	%
trimethoxy(methyl)silane	trimethoxy(methyl)silane	CAS: 1185-55-3	≤3
Methyl alcohol	methanol	CAS: 67-56-1	<0.1

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

- A. Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- B. Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- C. Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- D. Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- E. Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**See toxicological information (Section 11)**

## Section 5. Firefighting measures

- A. Extinguishing media**
- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.
- B. Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides
- C. Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special precautions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

## Section 6. Accidental release measures

- A. Personal precautions, protective equipment and emergency procedures** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- B. Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- C. Methods and material for containment and cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

- A. Precautions for safe handling**
- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

## Section 7. Handling and storage

### Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### B. Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### A. Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Methyl alcohol	<b>Ministry of Employment and Labor (Republic of Korea, 1/2020). Absorbed through skin.</b> STEL: 250 ppm 15 minutes. TWA: 200 ppm 8 hours.

### B. Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

#### Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### C. Personal protective equipment

#### Respiratory protection

: If workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. Use respiratory mask with charcoal and dust filter when spraying this product, according to EN 14387(as filter combination A2-P2). In confined spaces, use compressed-air or fresh-air respiratory equipment. When use of roller or brush, consider use of charcoalfilter.

#### Eye protection

: Use safety eyewear designed to protect against splash of liquids.

#### Hand protection

: There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. Wear suitable gloves tested to ISO 374-1:2016. Not recommended, gloves(breakthrough time) < 1 hour: polyvinyl alcohol (PVA) (> 0.3 mm) Recommended, gloves(breakthrough time) > 8 hours: fluor rubber (> 0.35 mm), butyl rubber (> 0.4 mm), Viton® (> 0.7 mm), 4H/Silver Shield® (> 0.07 mm), nitrile rubber (> 0.75 mm), neoprene (> 0.35 mm), PVC (> 0.5 mm)

## Section 8. Exposure controls/personal protection

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### A. Appearance

**Physical state** : Liquid.

**Colour** : Grey

**B. Odour** : Characteristic.

**C. Odour threshold** : Not applicable.

**D. pH** : Not applicable.

**E. Melting/freezing point** : 0

**F. Boiling point, initial boiling point, and boiling range** : Lowest known value: 100°C (212°F) (water). Weighted average: 100.04°C (212.1°F)

**G. Flash point** : Not applicable.

**H. Evaporation rate** : 0.36 (water) compared with butyl acetate

**I. Flammability (solid, gas)** : Not applicable.

**J. Lower and upper explosive (flammable) limits** : Not applicable.

**K. Vapour pressure** : Highest known value: 10.7 kPa (80.1 mm Hg) (at 20°C) (trimethoxy(methyl)silane). Weighted average: 2.47 kPa (18.53 mm Hg) (at 20°C)

**L. Solubility** : cold water Easily soluble  
hot water Easily soluble

**M. Vapour density** : Not available.

**N. Relative density** : 1.179 g/cm<sup>3</sup>

**O. Partition coefficient: n-octanol/water** : Not available.

**P. Auto-ignition temperature** : Not applicable.

**Q. Decomposition temperature** : Not available.

**R. Viscosity** : Kinematic (40°C (104°F)): >20.5 mm<sup>2</sup>/s (>20.5 cSt)

**S. Molecular weight** : Not applicable.

### Particle characteristics

**Median particle size** : Not applicable.

## Section 10. Stability and reactivity

- A. Chemical stability** : The product is stable.  
**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- B. Conditions to avoid** : No specific data.
- C. Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
- D. Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

- A. Information on likely routes of exposure** : Not available.

### Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.  
**Skin contact** : May cause an allergic skin reaction.  
**Eye contact** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Inhalation** : No specific data.  
**Ingestion** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness  
**Eye contact** : No specific data.

### **B. Health hazards**

#### Acute toxicity

Not available.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
trimethoxy(methyl)silane	Eyes - Mild irritant	Rabbit	-	24 hours	-
	Skin - Mild irritant	Rabbit	-	100 microliters 500 milligrams	-

#### Sensitisation

Product/ingredient name	Route of exposure	Species	Result
trimethoxy(methyl)silane	skin	Mammal - species unspecified	Sensitising

#### CMR - ISHA Article 42 Occupational Exposure Limits

Not available.

#### Mutagenicity

- Conclusion/Summary** : No known significant effects or critical hazards.

#### Carcinogenicity

- Conclusion/Summary** : No known significant effects or critical hazards.

#### Reproductive toxicity

## Section 11. Toxicological information

Not available.

### Teratogenicity

**Conclusion/Summary** : No known significant effects or critical hazards.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Methyl alcohol	Category 1	-	-

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Potential chronic health effects

#### Chronic toxicity

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
methanol	100	300	N/A	3	N/A

## Section 12. Ecological information

### A. Ecotoxicity

No known significant effects or critical hazards.

Not available.

### B. Persistence and degradability

Not available.

### C. Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Methyl alcohol	-0.77	<10	low

### D. Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**E. Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

- A. Disposal methods** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- B. Disposal precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	UN	IMDG	IATA
<b>A. UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>B. UN proper shipping name</b>	-	-	-
<b>C. Transport hazard class(es)</b>	Not regulated.	Not regulated.	Not regulated.
<b>D. Packing group</b>	-	-	-
<b>E. Environmental hazards</b>	No.	No.	No.

- F. Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

### A. Regulation according to ISHA

**ISHA article 117 (Harmful substances prohibited from manufacture)** : None of the components are listed.

**ISHA article 118 (Harmful substances requiring permission)** : None of the components are listed.

**Article 2 of Youth Protection Act on Substances Hazardous to Youth** : Not applicable.

### Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:  
Methyl alcohol



## Section 15. Regulatory information

**ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors)** : The following components are listed: methanol

**ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement)** : None of the components are listed.

**ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up)** : None of the components are listed.

**Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)** : None of the components are listed.

### B. Regulation according to Chemicals Control Act

**AREC Article 17 (TRI)** : None of the components are listed.

**AREC Article 32 (Banned)** : None of the components are listed.

**Article 19 Subject to authorization (K-Reach Article 25)** : None of the components are listed.

**AREC Toxic chemicals** : Not applicable

**AREC Article 32 (Restricted)** : None of the components are listed.

**CCA Article 39 (Accident Precaution Chemicals)** : None of the components are listed.

**Existing Chemical Substances Subject to Registration** : The following components are listed: Methanol

**C. Dangerous Materials Safety Management Act** : Not available.

**D. Wastes regulation** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

### E. Regulation according to other foreign laws

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

##### Montreal Protocol

Not listed.

##### Stockholm Convention on Persistent Organic Pollutants

Not listed.

##### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

##### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

## Section 16. Other information

- A. References** : - Registry of Toxic Effects of Chemical Substances  
- United States Environmental Protection Agency ECOTOX
- B. Date of issue** : 25.01.2022  
**Date of revision** : 29.11.2023
- C. Version** : 1.03  
**Date of printing** : **29.11.2023**

**D. Other**

✔ Indicates information that has changed from previously issued version.

- Key to abbreviations** : ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
N/A = Not available  
SGG = Segregation Group  
UN = United Nations

**Notice to reader**

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Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

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