



Safety Data sheet (SDS)

Revision Date:2022/1/25
Name: Adwel 1631

NO.PU_1631
Version: 4.0

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: Adwel 1631

Additional Name: Aqueous polyurethane dispersion

Company Name: Wanhua Chemical Group Co., LTD

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Recommended uses:

Polyurethane dispersion for the adhesive

Section 2 - HAZARDS IDENTIFICATION

2.1 GHS Classification of the substance or mixture

This product is not hazardous per the Globally Harmonized System of Classification and Labelling (GHS).

2.2 Label elements

Pictogram

No information available

Signal words:

No information available.

Hazard statements:

No information available

Precautionary statements:

Preventive measures:

Use the necessary personal protective equipment (gloves, goggles, protective clothing etc.). Clean the exposed parts of the body in case of skin contact. No eating, drinking or smoking in the workplace. Use only outdoors or in a well-ventilated area.

Accident response:

If inhaled: In case of reactions, seek medical advice.

In case of eye or skin contact: Wash with plenty of water/soap. In case of reactions, consult a physician.

If swallowed: Rinse mouth. Do not induce vomiting. If swallowed seek medical advice immediately.

In case of leakage: Collect leakage.

Suitable extinguishing substances: Carbon dioxide (CO₂), Foam, Extinguishing powder,

Water spray jet.

Storage:

Please store the product in sealed original packaging, cool and dry condition. Storage temperature should be maintained between 5°C and 35°C. The product should be protected from freezing during storage. Immediately seal the package after use.

Disposal:

In order to avoid the damage to human body and environment, do not store food and other items in the used empty packaging without harmless treatment; Recycling, utilization and disposal packaging should be in accordance with the applicable legislation. The disposer should be responsible for the damage and loss caused by improper waste disposal.

Physical and chemical hazards: May cause pollution to water and soil.

Health hazard: No

Environmental hazards: no release of dangerous substances. Do not allow to enter sewage system in case of blockage due to polymer deposition.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Substance/mixture : Mixture

| NAME | CAS RN | % |
|--------------|-----------|--------|
| Polyurethane | N/A | 47-49% |
| Water | 7732-18-5 | 51-53% |
| Acetone | 67-64-1 | <1% |

There is no GHS hazards classification for polyurethane.

Section 4 - FIRST AID MEASURES**Description of first aid measures**

General advice: In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

If inhaled: No special measures are necessary. In case of irritation, seek medical advice.

In case of skin contact: Wash with plenty of water/soap. In case of skin reactions, consult a physician.

In case of eye contact: Rinse cautiously with water for at least 20 minutes. Tilt the head in order to avoid contact with the other eye. Contact an ophthalmologist.

If swallowed: In all cases of doubt, or when symptoms persist, seek medical advice immediately.

Most important symptoms and effects, both acute and delayed

Symptoms: May cause irritation by skin contact.

Indication of any immediate medical attention and special treatment needed

Immediate medical attention: First Aid, decontamination, treatment of symptoms.

Section 5 - FIRE FIGHTING MEASURES

Hazards characteristics: Burning conditions will release toxic smoke

Hazards during fire-fighting: Carbon monoxide, Carbon dioxide, Oxynitride

Suitable extinguishing media: Water fog, foam, dry extinguishing media

Protective equipment for fire-fighters: Fire-fighter must wear the filtration mask, wear whole body fire protective clothing, fire in the wind. Transfer the vessels to an open area as far as possible. In case a fire occurs in a surrounding environment, sprinkling water into the surrounding equipment to make it cool.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protection equipment. Keep unauthorized persons away.

Environmental precautions

Do not empty into drains.

Methods and material for containment and cleaning up

Methods for cleaning up: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Reference to other sections

Reference to other sections Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

Section 7 - HANDLING AND STORAGE

Control parameters

The product does not contain any relevant quantities of materials with critical values that have to be mentioned at the workplace.

Handling

The precautions required in the handling of solvents must be taken. Ensure adequate ventilation and, if necessary, exhaust ventilation when handling or transferring the product. Explosion protection required.

Storage

The product will keep stable for 6 months when stored in its sealed original packaging at temperatures between 5°C and 35 °C. Storage at temperatures below 5°C will make the product frozen and cause irreversible damage. The product should therefore be protected from freezing during storage. Temperatures higher than 35 °C should be avoided in order to prevent the evaporation of water, which will result in the formation of a non-redispersible polymer film.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure controls

Exposure controls

Respiratory protection: Respiratory equipment required in an insufficiently ventilated working areas and during spraying.

Hand protection: Suitable materials for safety gloves. Nitrile rubber – NBR:
thickness ≥ 0.35 mm; breakthrough time ≥ 480 min. Recommendation: contaminated gloves should be disposed of.

Eye protection: Wear eye/face protection.

Body protection: Wear suitable protective clothing.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | | |
|--|--------------------------|--|
| Status | liquid | |
| Appearance | Milky white | |
| Water Solubility | Misible | |
| Odour | Slight smell of acetone | |
| Flammability | Not applicable | |
| Vapour pressure (kPa) | Not established | |
| pH | 6.0-9.0 | |
| Partition coefficient n-octanol / water (logk _{ow}) | Not established | |
| Flash point (°C) | Not applicable | |
| Density (g/cm ³) | ca. 1.02-1.09 at 20 °C | |
| Upper Explosive Limit[%(v/v)] | Not applicable | |
| Lower Explosive Limit[%(v/v)] | Not applicable | |
| Boiling point (°C) | Not established | |
| Explosive properties | Not applicable | |
| Auto-ignition temperature (°C) | Not applicable | |
| Decomposition temperature | Not established | |
| Oxidising properties | Not applicable | |
| Molecular weight(g/mol) | Not established | |
| Vapour density (Air = 1) | Not established | |
| Relative density (Water = 1) | 1.02-1.09 | |
| Viscosity, dynamic | 3000-8000 mPa.s at 25 °C | |
| VOC (g/l) | Not established | |

9.2 Other information

The indicated values do not necessarily correspond to the product specification. Please refer to the technical information sheet for specification data.

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

10.1 Stability

No decomposition when used properly.

10.2 Materials to avoid

Acids, bases and electrolyte solution.

10.3 Conditions to avoid

Strong light, high temperature and low temperature.

10.4 Hazardous decomposition products

On drying of the coating release of neutralizing agent.

Section 11 - TOXICOLOGICAL INFORMATION

Toxicological studies on the product are not yet available.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicological studies of the product are not available.

Do not allow to escape into waterways, wastewater or soil.

Section 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal considerations: Do not dispose of with household waste. Do not allow to enter drains. Dispose of waste according to applicable legislation.

Uncleaned empty packaging: Handle contaminated packages in the same way as the substance itself.

Suitable cleaning agents: Water (with cleaning agent). Retain contaminated washing water and dispose it.

Section 14 - TRANSPORTATION INFORMATION

ADR/RID

| | |
|------------------------------|---------------------|
| 14.1 UN number | Not dangerous goods |
| 14.2 UN proper shipping name | Not dangerous goods |
| 14.3 Transport hazard class | Not dangerous goods |
| 14.4 Packing group | Not dangerous goods |
| 14.5 Environment hazards | Not dangerous goods |

ADN

| | |
|------------------------------|---------------------|
| 14.1 UN number | Not dangerous goods |
| 14.2 UN proper shipping name | Not dangerous goods |
| 14.3 Transport hazard class | Not dangerous goods |
| 14.4 Packing group | Not dangerous goods |
| 14.5 Environment hazards | Not dangerous goods |

IATA

| | |
|------------------------------|---------------------|
| 14.1 UN number | Not dangerous goods |
| 14.2 UN proper shipping name | Not dangerous goods |

14.3 Transport hazard class Not dangerous goods

14.4 Packing group Not dangerous goods

14.5 Environment hazards Not dangerous goods

IMDG

14.1 UN number Not dangerous goods

14.2 UN proper shipping name Not dangerous goods

14.3 Transport hazard class Not dangerous goods

14.4 Packing group Not dangerous goods

14.5 Environment hazards Not dangerous goods

14.6 Special precautions for user

See section 6-8.

Additional information : Not dangerous cargo.

Avoid heat above 35°C or lower than 5°C, stay away from food, acids and bases. According to update IATA DGR, this product is not dangerous.

Section 15 - REGULATORY INFORMATION

15.1 The product is classified and labeled according to Regulation (EC)No. 1272/2008 (GHS/CLP).

15.2 Safety, health and environmental regulation/legislation specific for the substance or mixture Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances.

Not applicable

15.3 All ingredients are listed in IECSC, or exempted, or confirmed by suppliers.

Section 16 - OTHER INFORMATION

Legend

| | |
|-----|-----------------------|
| TLV | Threshold Limit Value |
| TWA | Time Weighted Average |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.