



SAFETY DATA SHEET

Revision date 2020-Dec-18

Revision number 2

1. IDENTIFICATION

Product identifier

Product name **WS-42**

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use [RU] No information available
Uses advised against None known

Details of the supplier of the safety data sheet

Supplier Anderson Chemical Company
 325 South Davis Avenue
 Litchfield, MN 55355
 (320) 693-2477

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC: (800) 424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

EMERGENCY OVERVIEW

The product contains no substances which at their given concentration, are considered to be hazardous to health

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS

contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

| | | | |
|---------------------------------|------------------------|-------------------------------------|-----------------------------|
| Physical state liquid | Color yellow | Appearance clear, viscous | Odor slight amine |
|---------------------------------|------------------------|-------------------------------------|-----------------------------|

GHS Label elements, including precautionary statements

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Other information

- Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No | weight-% | TRADE SECRET |
|-------------------------------------|------------|----------|--------------|
| Polydimethyldiallylammonia chloride | 26062-79-3 | — 40% | |
| Water | 7732-18-5 | 55 - 60% | |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First Aid Measures

Eye contact

Immediately flush with plenty of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Get medical attention if irritation develops and persists.

Skin contact

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Ingestion

Do NOT induce vomiting. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person. Get medical attention.

Inhalation

Remove person from affected area to fresh air and watch for delayed reaction. Give oxygen/artificial respiration if needed. Seek medical attention for any breathing problem.

Most important symptoms and effects, both acute and delayed

Acute effects

May result in mild irritation of a short-term nature for the skin and eyes.

Chronic effects

Prolonged or repeated skin exposure may cause dermatitis.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

This material is not expected to burn unless heated to dryness. Use extinguishing agent suitable for type of surrounding fire: Water, Foam, Carbon dioxide (CO₂), Dry chemical.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Special Hazard

Thermal decomposition (as may be experienced in a fire) may produce hydrogen chloride gas and/or may liberate oxides of nitrogen and carbon. Spills produce slippery surfaces and could present a physical hazard for firemen.

Advice for firefighters

Firefighting measures

Cool exposed containers with water spray after extinguishing fire.

Special protective equipment for firefighters

Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.

Explosion data

Sensitivity to Mechanical Impact

None.

Sensitivity to Static Discharge

None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Wear suitable protective clothing and gloves.

Environmental precautions

Environmental precautions

Avoid runoff to waterways and sewers.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills.

Methods for cleaning up

Clean up spill immediately using inert absorbent materials such as clays, sand, earth, or other commercially available dry sweeping compound. Spills of solution are extremely slippery so all residue must be removed promptly. If slippery conditions persist, apply additional dry sweeping compound. Following containment, large spills should be pumped into salvage tanks.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Keep container closed when not in use

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, gloves, and protective clothing when handling. Wash thoroughly after handling. Take off contaminated clothing and wash before reuse. Use with adequate ventilation and employ respiratory protection where mist or vapors may be generated. Ensure that eyewash stations and safety showers are close to the workstation location.

Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container closed when not in use
Store in a cool, well ventilated area. Store between 5 - 30 °C (41 - 86 °F)
Avoid storage temperatures below freezing, since product may stratify.
Changes in temperature create air pressure changes inside drums. Use proper precaution in unscrewing plug and/or opening container.

Incompatible products

Strong oxidizers. Contact with copper, copper alloys, aluminum, mild steel or iron may cause corrosion/degradation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering controls

Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

Individual protection measures, such as personal protective equipment

Eye/face Protection

Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

Hand Protection

Gloves impervious to liquid material.

Skin and body protection

While there is a possibility of skin contact, rubber gloves and boots impervious to liquid material should be worn.

Respiratory protection

Under most conditions, use adequate general ventilation and protective equipment since volatility and toxicity are very low. If significant vapors, mists or aerosols are present, use NIOSH approved respirator (ANSI Z882.1980) or equivalent, that is equipped with a dust/mist cartridge.

Other personal protection data

Eyewash fountains and safety showers must be easily accessible.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | |
|-----------------------|--------|
| Physical state | liquid |
|-----------------------|--------|

Color yellow
 Appearance clear, viscous
 Odor slight amine
 Odor threshold No information available

| <u>Property</u> | <u>Values</u> | <u>Remarks / Method</u> |
|--|--------------------------|--------------------------|
| pH | 4.0 - 8.0 | as is |
| Melting / freezing point | -3 - 0 °C / 26.6 - 32 °F | No information available |
| Boiling point / boiling range | > 100 °C / > 212 °F | No information available |
| Flash point | > 100 °C / > 212 °F | No information available |
| Evaporation rate | Equal to water | No information available |
| Flammability (solid, gas) | Not applicable | No information available |
| Flammability Limit in Air | | |
| Upper flammability limit | Not applicable | No information available |
| Lower flammability limit | Not applicable | No information available |
| Vapor pressure | 30 mm Hg @ 38 °C | No information available |
| Vapor density | > 60 mm Hg | No information available |
| Specific gravity | 1.07 - 1.10 | No information available |
| Solubility (water) | completely; 100% | No information available |
| Solubility in other solvents | No information available | No information available |
| Partition coefficient: n-octanol/water | No information available | No information available |
| Autoignition temperature | Not applicable | No information available |
| Decomposition temperature | No information available | No information available |
| Kinematic viscosity | No information available | No information available |
| Dynamic viscosity | 1,000 - 3,000 cps | No information available |

Other information

| | |
|--|--------------------------|
| Density | 8.92 - 9.17 lb/gal |
| Bulk Density | No information available |
| Explosive properties | No information available |
| Oxidizing properties | No information available |
| Softening point | No information available |
| Molecular weight | No information available |
| Volatile Organic Compound (VOC) content, wt. % | No information available |
| Percent Volatile, wt. % | 60 % (Water) |

10. STABILITY AND REACTIVITY

Reactivity

Reactivity
 No data available.

Chemical stability

Chemical stability
Stable.

Possibility of hazardous reactions

Possibility of hazardous reactions
None under normal processing.

Hazardous polymerization
Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid
None known.

Incompatible materials

Materials to avoid
Strong oxidizers. Contact with copper, copper alloys, aluminum, mild steel or iron may cause corrosion/degradation.

Hazardous decomposition products

Hazardous decomposition products
Thermal decomposition (as may be experienced in a fire) may produce hydrogen chloride gas and/or oxides of nitrogen and carbon.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Eye contact
None expected, but prolonged or repeated eye contact may result in mild irritation and redness of a short-term nature.

Skin contact
None expected, but prolonged or repeated skin contact may result in irritation of a short-term nature.

Ingestion
Effects of ingesting small amounts are negligible; ingesting large amounts may injure person slightly.

Inhalation
This product is not toxic by inhalation.

Acute toxicity - Product Information

Oral LD50 > 2,000 mg/kg
Dermal LD50 No information available
Inhalation LC50 No information available

Acute toxicity - Component Information

| Component | weight-% | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|----------|---------------------|-------------|-----------------|
| Polydimethyldiallylammonia chloride 26062-79-3 | - 40% | = 3000 mg/kg (Rat) | -- | -- |

Information on toxicological effects

Symptoms

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Skin corrosion/irritation**

Mild skin irritation

Serious eye damage/eye irritation

Testing conducted on rabbits showed minor transient irritation that cleared within days.

Sensitization

Product is not expected to be sensitizing.

Germ cell mutagenicity

Negative in the Ames test. Negative in the mouse micronucleus test.

Carcinogenicity

This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.

Reproductive toxicity

No information available

Specific target organ toxicity - Single exposure

No information available.

Specific target organ toxicity - Repeated exposure

No information available

Aspiration hazard

No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 7059 mg/kg

Other information

Conclusions are drawn from sources other than direct testing.

12. ECOLOGICAL INFORMATION**Ecotoxicity****Acute aquatic toxicity - Product Information**

| | |
|-----------------------------|---|
| Fish | LC50 (96 hr, static, non-renewal) = 0.795 ppm (Pimephales Promelas, Fathead Minnow) ¹ NOEC (96 hr, static, non-renewal) = 0.3125 ppm (Pimephales Promelas, Fathead Minnow) ¹ |
| Crustacea | LC50 (48 hr, static, non-renewal) = 483.6 ppm (Daphnia Magna, Water Flea) ¹ NOEC (48 hr, static, non-renewal) = 312.5 ppm (Daphnia Magna, Water Flea) ¹ |
| Algae/aquatic plants | No information available |

Persistence and degradability**Persistence and degradability**

No information available

Bioaccumulative potential

Bioaccumulative potential

This product does not bio-accumulate.

Mobility

Mobility

No information available

Results of PBT and vPvB assessment

PBT and vPvB assessment

No information available

Other adverse effects

Other information

Pace Analytical project number 60338919 using EPA 821/R-02/012 (6-15-2020).

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Recycle, if possible. If not, dispose of the waste material in accordance with all applicable federal, state and local laws and regulations regarding health and pollution. Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user to determine whether a material should be classified waste at the time of the disposal. This is due to the fact that product use, transformation, synthesis, mixing, etc. may change the nature of the product.

Contaminated packaging

Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT

Not regulated

ICAO/IATA

Not regulated

Not regulated

MDG

15. REGULATORY INFORMATION

International Inventories

United States (TSCA)

All ingredients are on the inventory or exempt from listing

Australia (AICS)

All ingredients are on the inventory or exempt from listing

Canada (DSL)

All ingredients are on the inventory or exempt from listing

Canada (NDSL)

None of the ingredients are on the inventory.

China (IECSC)

All ingredients are on the inventory or exempt from listing

European Union (EINECS)

All ingredients are on the inventory or exempt from listing

European Union (ELINCS)

None of the ingredients are on the inventory.

Japan (ENCS)

All ingredients are on the inventory or exempt from listing

South Korea (KECL)

All ingredients are on the inventory or exempt from listing

Philippines (PICCS)

All ingredients are on the inventory or exempt from listing

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

AICS - Australian Inventory of Chemical Substances

DSUNDSL - Canadian Domestic Substances List/Non-Domestic Substances List

IECSC - China Inventory of Existing Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

U.S. Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

| | | | | |
|--------------------|------------|------------------|----------------------|--------------------------------|
| NFPA Rating | Health - 1 | Flammability - 0 | Instability - 0 | Special Hazard - |
| HMIS Rating | Health - 1 | Flammability - 0 | Physical hazards - 0 | Personal protection - B |

Revision date 2020-Dec-18

Revision number 2

Disclaimer

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.

End of Safety Data Sheet