

Issue Date: 09-Oct-2012

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Version 1.01

1. Identification

Product identifier**Product Name:** WS-140H**Other means of identification****Product Code:** 3418**Synonyms:** ACH; Aluminum chlorohydrate; Aluminum chlorhydrate; Aluminum hydroxychloride**Recommended use of the chemical and restrictions on use****Recommended Use:** Industrial, Manufacturing or Laboratory use.**Restrictions on Use:** None known**Supplier Address**

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

Emergency telephone number

Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Corrosive to metals	Category 1

Hazards not otherwise classified (HNOC)

Not applicable

Label elements**Signal word:** Warning**Hazard statements:**

Causes skin irritation

Causes serious eye irritation

May be corrosive to metals

**Precautionary Statements - Prevention:**

Wash face, hands and any exposed skin thoroughly after handling

Keep only in original container
Wear protective gloves/eye protection/face protection

Precautionary Statements - Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of water and soap
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse
Absorb spillage to prevent material damage

Precautionary Statements - Storage:

Store in corrosion resistant container with a resistant inner liner

Unknown Acute toxicity: Not applicable

Other Information

Not applicable

3. Composition/information on ingredients

Chemical name	CAS No	Weight-%
Water	7732-18-5	Balance
Aluminum chloride hydroxide ($\text{Al}_2\text{Cl}(\text{OH})_5$)	12042-91-0	30-50

Any concentration shown as a range is due to batch variation or the exact percentage has been withheld as a trade secret.

4. First-aid measures**Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

Inhalation

Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact

Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed**Symptoms**

Redness. May cause redness and tearing of the eyes.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

Treat symptomatically.

5. Fire-fighting measures**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire

CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	Thermal decomposition can lead to release of toxic and corrosive gases/vapors. Most vapors are heavier than air. Vapors may spread along ground and collect in low or confined areas (sewers, basements, tanks).
Hazardous combustion products	Hydrogen chloride (HCl). Chlorine.
Explosion Data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.

Other information Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dike far ahead of liquid spill for later disposal. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Neutralization using basic chemicals causes hazardous gases such as carbon dioxide (CO₂).

7. Handling and storage

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

Incompatible Materials Oxidizing agent. Strong acids. Strong bases. Iron. Brass. Aluminum. Copper. Mild steel. Stainless steel. Caustic.

Packaging materials Do not store in unlined metal containers.

8. Exposure controls/personal protection

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Aluminum chloride hydroxide (Al ₂ Cl(OH) ₅)	TWA: 1 mg/m ³ respirable particulate matter	-	-

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Appropriate engineering controls**Engineering controls**

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tight sealing safety goggles.

Hand protection

Wear suitable gloves. Impervious gloves.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained.

General hygiene considerations

Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties**Physical State:**

Liquid

Appearance:

Clear to slightly hazy. Free of particulate

Color:

Colorless

Odor:

Odorless

Odor Threshold:

No information available

pH:**pH Range:**

3.0-3.5

Salt Out Point:

No information available

Melting Point/Freezing Point:

0 °C / 32 °F

Boiling Point/Boiling Range:

No information available

Flash Point:

No information available

Evaporation Rate (BuAc=1):

No information available

Flammability (solid, gas):

No information available

Flammability Limits in Air:

No information available

Vapor Pressure (mm Hg):

No information available

Vapor density (Air =1):

No information available

Specific Gravity (H₂O=1):

1.34

Water Solubility:

No information available

Solubility(ies):

No information available

Partition Coefficient

No information available

(n-octanol/water):**Autoignition Temperature:**

No information available

Decomposition Temperature:

No information available

Kinematic Viscosity:

No information available

Dynamic Viscosity:

No information available

Other information**Explosive properties**

No information available

Oxidizing properties

No information available

Molecular Weight:

79.44

10. Stability and reactivity

Reactivity	Slowly corrodes most metals. Reacts with caustics forming aluminum hydroxides.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Excessive heating after water evaporation for long periods of time can result in the evolution of hydrogen chloride (HCl).
Conditions to avoid	Exposure to air or moisture over prolonged periods. Excessive heating after water evaporation for long periods of time can result in the evolution of hydrogen chloride (HCl).
Incompatible Materials	Oxidizing agent. Strong acids. Strong bases. Iron. Brass. Aluminum. Copper. Mild steel. Stainless steel. Caustic.
Hazardous decomposition products	Emits toxic hydrogen chloride fumes when heated to decomposition. Hydrogen chloride (HCl). Chlorine.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. May cause redness and tearing of the eyes.

Numerical measures of toxicity

Acute Toxicity:

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

ATEmix (oral)	18,374.00 mg/kg
ATEmix (dermal)	4,004.00 mg/kg

Component Information

Chemical name	Oral LD ₅₀ :	Dermal LD ₅₀ :	LC ₅₀ (Lethal Concentration):
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Aluminum chloride hydroxide (Al ₂ Cl(OH) ₅) 12042-91-0	= 9187 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Classification based on data available for ingredients. Irritating to skin.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Irritating to eyes.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by OSHA,

IARC or NTP.

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.
Other Adverse Effects:	No information available.

12. Ecological information

Ecotoxicity The environmental impact of this product has not been fully investigated.

Product Information	
Method	EPA method 2002 from EPA-821-R-02-012
Species	Ceriodaphnia dubia
Endpoint type	LC50
Exposure time	48 h
Effective dose	665.33 mg/L
Method	EPA-821-R-02-023 EPA-821-R-02-012
Species	Ceriodaphnia dubia
Endpoint type	LC50
Exposure time	96 h Static Renewal
Effective dose	>400 mg/L
Method	EPA-821-R-02-023 EPA-821-R-02-012
Species	Ceriodaphnia dubia
Endpoint type	IC50
Exposure time	96 h Static Renewal
Effective dose	17.22 mg/L
Method	EPA-821-R-02-023 EPA-821-R-02-012
Species	Ceriodaphnia dubia
Endpoint type	IC25
Exposure time	96 h Static Renewal
Effective dose	8.61 mg/L
Species	Ceriodaphnia dubia
Endpoint type	EC50
Exposure time	48 h Static
Effective dose	33.2 mg/L
Species	Daphnia magna
Endpoint type	EC50
Exposure time	48 h
Effective dose	397 mg/L
Method	Envir. Canada EPS 1/RM/9, 1990, amend. 05/1996 et 05/2007
Species	Oncorhynchus mykiss (rainbow trout)
Endpoint type	LC50
Exposure time	96 h
Effective dose	354 mg/L
Method	EPA-821-R-02-023 EPA-821-R-02-012
Species	Pimephales promelas
Endpoint type	LC50
Exposure time	96 h 3-brood Static Renewal

Effective dose	400 mg/L
Method	EPA-821-R-02-023 EPA-821-R-02-012
Species	Pimephales promelas
Endpoint type	IC50
Exposure time	48 h 3-brood Static Renewal
Effective dose	39.1 mg/L
Method	EPA-821-R-02-023 EPA-821-R-02-012
Species	Pimephales promelas
Endpoint type	IC25
Exposure time	48 h 3-brood Static Renewal
Effective dose	29.57 mg/L
Method	EPA method 2000 from EPA-821-R-02-012
Species	Pimephales promelas
Endpoint type	LC50
Exposure time	96 h
Effective dose	571.29 mg/L

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Aluminum chloride hydroxide ($\text{Al}_2\text{Cl}(\text{OH})_5$) 12042-91-0	-	100 - 500 mg/L (LC50 96 h static - Brachydanio rerio)	-	-

Persistence and Degradability: No information available.

Bioaccumulation: There is no data for this product.

Mobility: No information available.

Other Adverse Effects: No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local, state, and national regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. Transport information

DOT

Description Not DOT Regulated

15. Regulatory information

International Inventories

Chemical name	TSCA	AICS	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS
Water 7732-18-5	Present ACTIVE	Present	Present	-	Present	-	Present	Present	Present	Present
Aluminum chloride hydroxide ($\text{Al}_2\text{Cl}(\text{OH})_5$)	Present ACTIVE	Present	Present	-	Present	-	Present	Present	Present	Present

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

AICS - Australian Inventory of Chemical Substances

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

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.

SARA 311/312 Hazard Categories

Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 and later calendar years will need to be consistent with updated hazard classifications.

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.

Clean Water Act (CWA)

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).

OSHA - Process Safety Management - Highly Hazardous Chemicals

This product does not contain any substances regulated under Process Safety Management (29 CFR 1910.119).

Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS)

This product does not contain any substances regulated under the Chemical Facility Anti-Terrorism Standards (6 CFR 27).

16. Other information

Prepared By: HSE Department
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Revision Note: Updated section(s) 9.

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