



# SAFETY DATA SHEET

## Section 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Chem 50/50 Antifreeze Bulk  
Other Identifiers: Loaded stream charge  
Product Code(s): 506B  
Model Code(s) for Fire Extinguishers: 240  
Recommended Uses: Anti-freeze charge for water fire extinguisher; not for human or animal drug use  
Manufacturer: AMEREX CORPORATION  
Internet Address: [www.amerex-fire.com](http://www.amerex-fire.com)  
Address: 7595 Gadsden Highway, P.O. Box 81  
Trussville, AL 35173-0081  
Company Telephone: (205) 655-3271  
E-mail Address: [info@amerex-fire.com](mailto:info@amerex-fire.com)  
Emergency Contacts: Chemtrec 1(800) 424-9300 or (703) 527-3887  
Revised: May 1, 2024; Revision F

## Section 2. HAZARDS IDENTIFICATION

### GHS – Classification

Hazard Class	Category	Signal Word
Acute Toxicity, oral	Category 4	Warning
Skin Corrosion/Irritation	Category 2	Warning
Serious eye damage/eye irritation	Category 2A	Warning
Specific target organ toxicity, single exposure; Respiratory tract irritation	Category 3	Warning

GHS – Label Symbol(s):



GHS – Signal Word(s):

Warning

Other Hazards Not Resulting in Classification: None

## GHS – Hazard Phrases

GHS Hazard	GHS Codes(s)	Code Phrase(s)
Physical	None	
Health	H302 315 319 335	Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.
Environmental	None	
<b>Precautionary:</b>		
General	P101	If medical advice is needed, have product container or label at hand
Prevention	P261 270 271 280 264+265	Avoid breathing dust/fumes/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Wash exposed skin thoroughly after handling.
Response	P321 330 301+317 302+352 304+340 305+351+338  332+317 337+317 362+364	Specific treatment (see Section 4. First Aid Measures) Rinse mouth IF SWALLOWED: Get medical help. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If skin irritation occurs: Get medical help. If eye irritation persists: Get medical help. Take off contaminated clothing and wash it before reuse.
Storage	P405 403+233	Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Disposal	P501	Dispose of contents through a licensed disposal company. Contaminated container should be disposed of as unused product.

## Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No.	Weight %
Water	231-791-2	NA	7732-18-5	40-60
Potassium acetate	204-822-2	NA	127-08-2	40-60
Phosphoric Acid	231-633-2	01-2119485924-24-0037	7664-38-2	<1
Purple Pigment	228-767-9	NA	6358-30-1	<1

Emergency overview:

Adverse health effects and symptoms:

Light purple liquid solution.

This product may be a mild irritant to the respiratory system, and an irritant to the eyes and skin.

Symptoms may include coughing, sore throat, difficulty breathing, eye pain, and skin redness and irritation. Ingestion, although unlikely, may cause cramps, nausea and diarrhea.

## Section 4. FIRST AID MEASURES

Eye Exposure:	Causes eye irritation. Irrigate eyes with water and repeat until pain free. Seek medical attention if irritation persists.
Skin Exposure:	Causes skin irritation. In case of contact, wash with plenty of soap and water. Seek medical attention if irritation persists.
Inhalation:	May cause irritation, along with coughing. If respiratory irritation or distress occurs, remove victim to fresh air. Seek medical attention if irritation persists.
Ingestion:	Overdose symptoms may include gastrointestinal complaints or change in urine output. If victim is conscious and alert, rinse out mouth and give 1-2 glasses of water or milk to drink. Do not induce vomiting. Consult medical service if feel unwell. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist.
Medical conditions possibly aggravated by exposure:	Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema, or bronchitis. Skin contact may aggravate existing skin disease.

## Section 5. FIRE-FIGHTING MEASURES

Flammable Properties:	Not flammable
Flash Point:	Not determined
Suitable Extinguishing Media:	Non-combustible. Use extinguishing media suitable for surrounding conditions.
Hazardous Combustion Products:	Carbon monoxide, carbon dioxide, and metal oxides. Decomposes with heat to create acetic acid fumes.
<u>Explosion Data:</u>	
Sensitivity to Mechanical Impact:	Not sensitive.
Sensitivity to Static Discharge:	Not sensitive.
Unusual fire/explosion hazards:	NA
Protective Equipment and Precautions for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand. NIOSH (approved or equivalent) and full protective gear.

## Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes, and clothing.
Personal Protective Equipment:	During minor spill clean-up: Minimum – chemical goggles, nitrile gloves, and an air purifying respirator.
Emergency Procedures:	Large spills (one container or more) should be addressed by hazardous materials technicians who follow a specific emergency response plan and who are trained in the appropriate use of PPE.
Methods for Containment:	Prevent further leakage or spillage if safe to do so. Use sorbent socks for containment.
Methods for Clean Up:	Clean up released material using sorbent materials. Bag and drum for disposal; properly label containers; dispose as required by local, state, and federal regulations. Decontaminate with detergent and water.
Environmental Precautions:	Prevent material from entering waterways.
Other:	If product is contaminated, use PPE and containment appropriate to the nature of the most toxic chemical/material in the mixture.

## Section 7. HANDLING AND STORAGE

Personal Precautions:	Use appropriate PPE when handling or maintaining equipment and wash thoroughly after handling (see Section 8).
Conditions for Safe Storage/Handling:	Keep product in original container or extinguisher in a cool area. Use in well-ventilated area. Prevent falling. Do not allow near heat sources. Contents may be under pressure – inspect for extinguisher rust periodically to ensure container integrity.
Incompatible Products:	This material is incompatible with strong acids and strong oxidizing agents. In contact with strong acids, potassium acetate may react vigorously and decompose to produce acetic acid fumes. Potassium acetate may be mildly corrosive to many metals.
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide, metal oxides.
Hazardous Polymerization:	Will not occur.

## Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	OSHA PEL	ACGIH TLV	DFG MAK *	EU BLV
Water	NR	NR	NR	NR
Potassium acetate	NR	NR	NR	NR
Phosphoric acid	NA	NA	NA	NA
Purple Pigment	NA	NA	NA	NA

\*German regulatory limits \*\*PNOC = Particulates not otherwise classified (ACGIH) also known as Particulates not otherwise regulated (OSHA) \*\*\* NR = Not Regulated. NA= Not applicable because concentration is less than one percent of the mixture and is expected to not be relevant. All values are 8 hour time weighted average concentrations.

### Engineering Controls:

Showers  
Eyewash stations  
Ventilation systems

### Personal Protective Equipment – PPE Code E:

The need for respiratory protection is not probable during short-term exposure. During production, the manufacturer should use judgement concerning the need for PPE.



Eye/Face Protection:

Wear chemical goggles when avoidance of splashes, mist, and gases is necessary.

Skin and Body Protection:

Wear nitrile or similar gloves, and coveralls or a long sleeve shirt, if necessary.

Respiratory Protection:

If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn. Use N100 mask for limited exposure; use air-purifying respirator (APR) with high efficiency particulate air (HEPA) filters for prolonged exposure. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. The need for respiratory protection is not likely for short-term use in well ventilated areas.

Hygiene Measures:

Good personal hygiene practices essential, such as avoiding food, tobacco products, or other hand-to-mouth contact when handling. Wash thoroughly after handling.

## Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light purple liquid
Molecular Weight:	C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> - 98.14
Odor:	No information available
Odor threshold:	No information available
Decomposition Temperature °C:	No information available
Freezing Point °C:	No information available
Initial Boiling Point °C:	No information available
Physical State:	Liquid
pH:	Approximately 8.65 in solution at 20°C
Flash Point °C:	C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> - >250
Auto-ignition Temperature °C:	None
Boiling Point/Range °C:	No information available
Melting Point/Range °C:	C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> - 292
Flammability:	Not flammable
Flammability/Explosive Limits in Air °C:	Upper – None; Lower-None
Explosive Properties:	None
Oxidizing Properties:	None
Volatile Component (%vol)	No information available
Evaporation Rate:	No information available
Vapor Density:	No information available
Vapor Pressure:	C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> - <0.0000001 hPa at 25°C
Specific gravity:	Approximately 1.27 at 20°C
Solubility:	Soluble in water
Partition Coefficient:	No information available
Viscosity:	No information available

## Section 10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage and handling conditions.
Reactivity:	Not reactive.
Possibility of Hazardous Reactions:	Under normal conditions of storage and handling, hazardous reactions will not occur.
Incompatibles:	This material is incompatible with strong acids and strong oxidizing agents. In contact with strong acids, potassium acetate may react vigorously and decompose to produce acetic acid fumes. Potassium acetate may be mildly corrosive to many metals.
Conditions to Avoid:	Storage or handling near incompatibles.
Hazardous Decomposition Products:	Heat of fire may release carbon monoxide, carbon dioxide, and oxides of potassium.
Possibility of Hazardous Reactions:	None
Hazardous Polymerization	Does not occur.

## Section 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Inhalation, skin, and eye contact.
Symptoms:	
Immediate	
Inhalation:	Irritation, coughing.
Eyes:	Irritation.
Skin:	Irritation.
Delayed:	Symptoms appear to be relatively immediate
Acute Toxicity:	Relatively non-toxic.
Chronic Toxicity:	
Short-term Exposure:	None known.
Long-term Exposure:	None known.

### Acute Toxicity Values - Health

Chemical Name	LD50		LC50 (Inhalation)
	Oral	Dermal	
Water	NA	NA	NA
Potassium acetate	3250 mg/kg (rat)	NA	0.117 mg/m <sup>3</sup> -90 day continuous (lowest published)
Phosphoric acid	NA	NA	NA
Purple Pigment	NA	NA	NA

Reproductive Toxicity:	This product's ingredients are not known to have reproductive or teratogenic effects.
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Target Organs and Effects (TOST):

No information indicating that this product has any known single exposure or repeated exposure effects.

### Other Toxicity Categories

Chemical Name	Germ Cell Mutagenicity	Carcinogenicity	Reproductive	TOST Single Exp	TOST Repeated Exp	Aspiration
Water	None	None	None	None	None	None
Potassium acetate	None	None	None	Cat 3 (Resp irr)	None	None
Phosphoric acid	NA	NA	NA	NA	NA	NA
Purple Pigment	NA	NA	NA	NA	NA	NA

## Section 12. ECOLOGICAL INFORMATION

Ecotoxicity:	A weak environmental toxin. Specific negative impacts are unknown.
Persistence/Degradability:	Soluble in water; moderate degradation in soil. Rapid photolytic degradation in air.
Probability of rapid biodegradation:	C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> Est: 0.792 (Rapid)
Anaerobic biodegradation probability:	C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> Est: 0.943 (Rapid)
Bioaccumulation potential:	Low.
Bioconcentration factor:	C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> Est: 3.16 L/kg (wet weight) (Low BCF)
Bioaccumulation factor:	C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> Est: 0.929 L/kg (wet weight)
Mobility in soil:	Slow evaporation rate; water soluble, may leach to groundwater.
Log Koc:	C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub> Est: -1.902 (Kow Method)
Log Koa:	Not Available

NOTE: C<sub>2</sub>H<sub>3</sub>KO<sub>2</sub> – Potassium Acetate

Other Adverse Ecological Effects: No other known effects at this time.

### Aquatic Toxicity Values – Environment – Research

Chemical Name	Acute (LC50)	Chronic (LC50)
Water	N/A	N/A
Potassium acetate	6800 mg/l Oncorhynchus mykiss 96 hr >992 mg/l Danio rerio 96 hr	N/A
Chem phosphoric acid	NA	NA
Purple Pigment	NA	NA

### Aquatic Toxicity Values – Environment – Calculated Estimates

Chemical Name	Acute (LC50)	EC50
Water	N/A	N/A
Potassium acetate	N/A	4403 mg/L Gr. Algae 96 hr 7170 mg/l Daphnia 24 hr
Chem Phosphoric acid	NA	NA
Purple Pigment	NA	NA

N/A – Not available. NA – Not applicable.



## Section 13. DISPOSAL CONSIDERATIONS

Safe Handling	Use appropriate PPE when handling and wash thoroughly after handling (see Section 8).
Waste Disposal Considerations	Dispose in accordance with federal, state, provincial, and local regulations.
Contaminated Packaging	Dispose in accordance with federal, state, provincial, and local regulations.

### NOTES:

This product is not a RCRA characteristically hazardous or listed hazardous waste. Dispose of according to state or local laws, which may be more restrictive than federal laws or regulations. Used product may be altered or contaminated, creating different disposal considerations.

## Section 14. TRANSPORT INFORMATION

UN Number:	NA
UN Proper Shipping Name:	NA
Transport Hazard Class:	NA
Packing Group:	NA
Marine Pollutant?:	NO
IATA	Not regulated
DOT	Not regulated

### NOTES:

This product is not defined as a hazardous material under U.S. Department of Transportation (DOT) 49 CFR 172, or by Transport Canada "Transportation of Dangerous Goods" regulations. This transportation information covers the Chem CH 506 Antifreeze fire extinguisher agent as shipped in bulk containers and not when contained in fire extinguishers or fire extinguisher systems.

### Special Precautions for Shipping:

If shipped in a stored pressure-type fire extinguisher, and pressurized with a non-flammable, non-toxic inert expellant gas, the fire extinguisher is considered a hazardous material by the US Department of Transportation and Transport Canada. The proper shipping name shall be FIRE EXTINGUISHER and the UN designation is UN 1044. The DOT hazard class/division is LIMITED QUANTITY when pressurized to less than 241 psig and when shipped via highway or rail. UN Class 2.2. Non-Flammable Gas, when shipping via air. Packing Group – N/A.

## Section 15. REGULATORY INFORMATION

**International Inventory Status:** All ingredients are on the following inventories:

Country(ies)	Agency	Status
United States of America	TSCA	Yes
Canada	DSL	Yes
Europe	EINECS/ELINCS	Yes
Australia	AICS	Yes
Japan	MITI	Yes
South Korea	KECL	Yes

**REACH Title XVII Restrictions:** No information available

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on Label	Pollution Release and Transfer Registry (Class II)	Pollution Release and Transfer Registry (Class I)	Poison and Deleterious Substances Control Law
Water	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Potassium acetate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Chem phosphoric acid	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Purple Pigment	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Component	ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA – Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) – Toxic Chemicals	Toxic Release Inventory (TRI) – Group I	Toxic Release Inventory (TRI) – Group II
Water	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Potassium acetate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Phosphoric acid	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Purple Pigment	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

### European Risk and Safety phrases:

EU Classification:

R Phrases:	21 25 23/24/25 36/37/38	Harmful in contact with skin. Toxic if swallowed. Toxic by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin.
S Phrases:	24/25 26 36 45 36/37/39	Avoid contact with skin and eyes In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. In case of accident or if you feel unwell seek medical advice immediately (show the label where possible) Wear suitable protective clothing, gloves and eye/face protection.

**U.S. Federal Regulatory Information:**

**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.

None of the chemicals in this product are under SARA reporting requirements or have SARA threshold planning quantities (TPQs) or CERCLA reportable quantities (RQs), or are regulated under TSCA 8(d).

**SARA 311/312 Hazard Categories:**

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Reactive Hazard	No

**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)

**Clean Air Act:**

Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPs) under Section 112 of the Clean Air Act Amendments of 1990.

**U.S. State Regulatory Information:**

Chemicals in this product are covered under specific State regulations, as denoted below:

**Alaska** - Designated Toxic and Hazardous Substances: None

**California** – Permissible Exposure Limits for Chemical Contaminants: None

**Florida** – Substance List: None

**Illinois** – Toxic Substance List: None

**Kansas** – Section 302/303 List: None

**Massachusetts** – Substance List: None

**Minnesota** – List of Hazardous Substances: None

**Missouri** – Employer Information/Toxic Substance List: None

**New Jersey** – Right to Know Hazardous Substance List: None

**North Dakota** – List of Hazardous Chemicals, Reportable Quantities: None

**Pennsylvania** – Hazardous Substance List: None

**Rhode Island** – Hazardous Substance List: None

**Texas** – Hazardous Substance List: None

**West Virginia** – Hazardous Substance List: None

**Wisconsin** – Toxic and Hazardous Substances: None

California Proposition 65: No component is listed on the California Proposition 65 list.

**Other:**

Mexico – Grade

No component listed

Canada – WHMIS Hazard Class

No component listed

**Section 16. OTHER INFORMATION**

This SDS conforms to requirements under U.S., U.K., Canadian, Australian, and EU regulations or standards, and conforms to the proposed 2003 ANSI Z400.1 format. No modifications of this SDS are authorized by AMEREX Corporation. Questions or comments should be directed to AMEREX Corporation (See Section 1).

Issuing Date

17-June-2012

Revision Date

1-May-2024; Revision F

Revision Notes

None

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