

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
Product name : HaloKlear BHR-P50  
Product code : 301420-05

#### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : Flocculates solids  
Recommended use : Flocculant

#### 1.3. Supplier

##### Manufacturer

Dober Chemical Corp.  
543 Forest Road  
Hazle Township, PA, 18202  
USA  
T 630-410-7300 - F 630-410-7444  
[regulatory@dober.com](mailto:regulatory@dober.com) - [www.dober.com](http://www.dober.com)

#### 1.4. Emergency telephone number

Emergency number : 1-800-255-3924 / 1-813-248-0585  
ChemTel

### SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

|                                              |      |                            |
|----------------------------------------------|------|----------------------------|
| Corrosive to metals Category 1               | H290 | May be corrosive to metals |
| Serious eye damage/eye irritation Category 1 | H318 | Causes serious eye damage  |
| Full text of H statements : see section 16   |      |                            |

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger  
Hazard statements (GHS US) : H290 - May be corrosive to metals  
H318 - Causes serious eye damage  
Precautionary statements (GHS US) : P234 - Keep only in original container.  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a doctor.  
P390 - Absorb spillage to prevent material-damage.  
P406 - Store in corrosive resistant container with a resistant inner liner.

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### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

16% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

16% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name                                | Product identifier  | %       | GHS US classification                  |
|-------------------------------------|---------------------|---------|----------------------------------------|
| Aluminum chloride hydroxide sulfate | CAS-No.: 39290-78-3 | 10 – 30 | Met. Corr. 1, H290<br>Eye Dam. 1, H318 |

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

|                                       |                                                                                                                                                                              |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| First-aid measures general            | : If you feel unwell, seek medical advice. Never give anything by mouth to an unconscious person.                                                                            |
| First-aid measures after inhalation   | : Allow affected person to breathe fresh air. Allow the victim to rest.                                                                                                      |
| First-aid measures after skin contact | : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.                                                            |
| First-aid measures after eye contact  | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician. |
| First-aid measures after ingestion    | : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.                                                                                                   |

### 4.2. Most important symptoms and effects (acute and delayed)

|                                                     |                                                                     |
|-----------------------------------------------------|---------------------------------------------------------------------|
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/effects after eye contact                  | : Causes serious eye damage.                                        |

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

|                                |                                                        |
|--------------------------------|--------------------------------------------------------|
| Suitable extinguishing media   | : Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : Do not use a heavy water stream.                     |

### 5.2. Specific hazards arising from the chemical

No additional information available

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### 5.3. Special protective equipment and precautions for fire-fighters

- |                                |                                                                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Firefighting instructions      | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection.                                                                   |

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

- |                      |                                   |
|----------------------|-----------------------------------|
| Emergency procedures | : Evacuate unnecessary personnel. |
|----------------------|-----------------------------------|

#### 6.1.2. For emergency responders

- |                      |                                              |
|----------------------|----------------------------------------------|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Ventilate area.                            |

### 6.2. Environmental precautions

None known. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

- |                         |                                                                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methods for cleaning up | : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Absorb spillage to prevent material-damage. |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- |                                   |                                                                                                                                                                                                 |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Additional hazards when processed | : May be corrosive to metals.                                                                                                                                                                   |
| Precautions for safe handling     | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. |
| Hygiene measures                  | : Wash hands, forearms and face thoroughly after handling.                                                                                                                                      |

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

- |                        |                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------|
| Storage conditions     | : Keep only in the original container in a cool, well-ventilated place. Keep container closed when not in use. |
| Incompatible products  | : Strong acids. Strong bases.                                                                                  |
| Incompatible materials | : Direct sunlight.                                                                                             |
| Packaging materials    | : Store in corrosive resistant container with a resistant inner liner.                                         |

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Appropriate engineering controls

No additional information available

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### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

|                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hand protection:</b>                                                                                                                                                                                                                                                                                  |
| Wear protective gloves.                                                                                                                                                                                                                                                                                  |
| <b>Eye protection:</b>                                                                                                                                                                                                                                                                                   |
| Chemical goggles or safety glasses                                                                                                                                                                                                                                                                       |
| <b>Skin and body protection:</b>                                                                                                                                                                                                                                                                         |
| Wear suitable protective clothing                                                                                                                                                                                                                                                                        |
| <b>Respiratory protection:</b>                                                                                                                                                                                                                                                                           |
| Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary |

#### Personal protective equipment symbol(s):



#### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                                                 |                     |
|-------------------------------------------------|---------------------|
| Physical state                                  | : Liquid            |
| Color                                           | : Yellow to amber   |
| Odor                                            | : odorless          |
| Odor threshold                                  | : No data available |
| pH                                              | : 3 – 3.5           |
| Melting point                                   | : No data available |
| Freezing point                                  | : No data available |
| Boiling point                                   | : No data available |
| Flash point                                     | : No data available |
| Relative evaporation rate (butyl acetate=1)     | : No data available |
| Flammability (solid, gas)                       | : Non flammable.    |
| Vapor pressure                                  | : No data available |
| Relative vapor density at 20°C                  | : No data available |
| Relative density                                | : No data available |
| Solubility                                      | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature                       | : No data available |
| Decomposition temperature                       | : No data available |
| Viscosity, kinematic                            | : No data available |
| Viscosity, dynamic                              | : No data available |
| Explosion limits                                | : No data available |
| Explosive properties                            | : No data available |
| Oxidizing properties                            | : No data available |

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### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases. metals. May be corrosive to metals.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

| HaloKlear BHR-P50               |                                                                                                                                                                                    |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unknown acute toxicity (GHS US) | 16% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)<br>16% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)) |

| Aluminum chloride hydroxide sulfate (39290-78-3) |                                 |
|--------------------------------------------------|---------------------------------|
| LD50 oral rat                                    | > 5000 mg/kg (Source: IUCLID)   |
| LD50 dermal rat                                  | > 2000 mg/kg (Source: ECHA_API) |
| LC50 Inhalation - Rat                            | > 5 mg/l/4h                     |

Skin corrosion/irritation : Not classified  
pH: 3 – 3.5  
Serious eye damage/irritation : Causes serious eye damage.  
pH: 3 – 3.5  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified

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|                                                     |                                                                     |
|-----------------------------------------------------|---------------------------------------------------------------------|
| Viscosity, kinematic                                | : No data available                                                 |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/effects after eye contact                  | : Causes serious eye damage.                                        |

## SECTION 12: Ecological information

### 12.1. Toxicity

| HaloKlear BHR-P50      |                                            |
|------------------------|--------------------------------------------|
| LC50 - Fish [1]        | 3222 ppm O.mykiss (rainbow trout); 96 hour |
| EC50 - Crustacea [1]   | 392 ppm Ceriodaphnia; 48 hour              |
| NOEC chronic fish      | 1389 ppm O. mykiss (rainbow trout)         |
| NOEC chronic crustacea | 781.2 ppm Ceriodaphnia                     |

### 12.2. Persistence and degradability

| HaloKlear BHR-P50                                |                    |
|--------------------------------------------------|--------------------|
| Persistence and degradability                    | Not established.   |
| Aluminum chloride hydroxide sulfate (39290-78-3) |                    |
| Persistence and degradability                    | Rapidly degradable |

### 12.3. Bioaccumulative potential

| HaloKlear BHR-P50                                |                  |
|--------------------------------------------------|------------------|
| Bioaccumulative potential                        | Not established. |
| Aluminum chloride hydroxide sulfate (39290-78-3) |                  |
| Partition coefficient n-octanol/water (Log Pow)  | < 3              |

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

Other information : No other effects known.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecological information : None known.

## SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

UN-No.(DOT) : Non Regulated when transported in packaging constructed of materials that will not react dangerously with or be degraded by the material.

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UN-No. (IMDG) : 3264

UN-No. (IATA) : 3264

### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable.

Proper Shipping Name (IMDG) : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(Aluminum Chloride Hydroxide Sulfate)

Proper Shipping Name (IATA) : Corrosive liquid, acidic, inorganic, n.o.s.  
(Aluminum Chloride Hydroxide Sulfate)

### 14.3. Transport hazard class(es)

Class (DOT) : Not applicable.

:

Transport hazard class(es) (IMDG) : 8

Hazard labels (IMDG) : 8

:



Transport hazard class(es) (IATA) : 8

Hazard labels (IATA) : 8

:



### 14.4. Packing group

Packing group (DOT) : Not applicable.

Packing group (IMDG) : III

Packing group (IATA) : III

### 14.5. Environmental hazards

Marine pollutant(IMDG) : No

Marine pollutant(IATA) : No

### 14.6. Special precautions for user

#### DOT

Not applicable

#### IMDG

Special provision (IMDG) : 274

Limited quantities (IMDG) : 0

Excepted quantities (IMDG) : E0

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|                                |                                                        |
|--------------------------------|--------------------------------------------------------|
| Packing instructions (IMDG)    | : P001                                                 |
| Tank instructions (IMDG)       | : T14                                                  |
| Tank special provisions (IMDG) | : TP2, TP27                                            |
| EmS-No. (Fire)                 | : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE     |
| EmS-No. (Spillage)             | : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES |
| Stowage category (IMDG)        | : B                                                    |
| Segregation (IMDG)             | : SG36                                                 |
| MFAG-No                        | : 154                                                  |

### IATA

|                                              |        |
|----------------------------------------------|--------|
| PCA Excepted quantities (IATA)               | : E2   |
| PCA Limited quantities (IATA)                | : Y840 |
| PCA limited quantity max net quantity (IATA) | : 0.5L |
| PCA packing instructions (IATA)              | : 851  |
| PCA max net quantity (IATA)                  | : 1L   |
| CAO packing instructions (IATA)              | : 855  |
| CAO max net quantity (IATA)                  | : 30L  |
| Special provision (IATA)                     | : A3   |
| ERG code (IATA)                              | : 8L   |

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

### 15.2. International regulations

No additional information available

### 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16: Other information

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|                   |            |
|-------------------|------------|
| Revision date     | : 4/3/2025 |
| Other information | : None.    |

| Full text of H-phrases |                            |
|------------------------|----------------------------|
| H290                   | May be corrosive to metals |
| H318                   | Causes serious eye damage  |

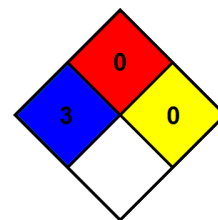
|                    |                                                                                                                                                       |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| NFPA health hazard | : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.                                                              |
| NFPA fire hazard   | : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. |

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NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : C - Safety glasses, Gloves, Synthetic apron

Safety Data Sheet (SDS), USA

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.