

# MATERIAL SAFETY DATA SHEET

## According to Regulation (EC) No 1907/2006 REACH

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### 1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

**Trademark:** Arichem HES-FR

**Product Code:** Arichem HES-FR

**Product Description:** High Efficiency Sulfonate  
CAS name: Complex Sulphonate Salt Blend

**Product Type:** Commercial Product  
(Product is a compound or mixture)

**Recommended use:** May be used as a flame retardant in polycarbonate resin formulations

**Company:** Arichem LLC  
187 Sloss Industrial Road  
Ariton, AL 36311  
USA

**Manufacturer:** Arichem LLC  
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**2. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:**

White crystalline powder  
 No characteristic odor  
 Spilled material may create slipping hazard  
 Can burn in a fire producing toxic smoke  
 Decomposition products are toxic.  
 No other significant fire, explosion or health hazard.

**Skin Contact:** May cause minor skin irritation

**Eye Contact:** Powder particles may be irritating to the eyes

**Inhalation:** Powder particles may be irritating – avoid inhalation

**Ingestion:** Effects unknown. If ingested, get trained medical help.

**Other Information:** For skin or eye contact, flush affected areas with water continuing for 20 minutes

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

CAS/EC/Index/REACH No	Concentration	% b-w
Proprietary Sulphonate Salt Blend	100%	% b-w

All components are listed on TSCA Inventory. See Sections 8 and 11 for exposure information.  
 This product does not contain substances to be mentioned according to EU Regulation No. 1907/2006 (REACH), annex II.  
 Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 99/45/EC unless indicated.

**4. FIRST AID MEASURES**

**If inhaled:** Move to fresh air in the event of inhalation of concentrated dust. Give artificial respiration if not breathing; Give oxygen if breathing is difficult. Call for trained medical help.

**On skin contact:** Flush contacted skin areas with water for 20 minutes

**On eye contact:** Flush eyes with water for 20 minutes

**On ingestion:** Effects unknown. If ingested, get trained medical help.

**Precautions:** In all cases, get trained medical help immediately.

## 5. FIRE FIGHTING MEASURES

<b>Autoignition Temperature:</b>	Not established
<b>Explosive Limits:</b>	Not a significant explosion hazard.
<b>Upper</b>	Not established
<b>Lower</b>	Not established
<b>Suitable Extinguishing Media:</b>	Use dry chemical, CO <sub>2</sub> , water fog, or regular foam.
<b>Unsuitable Extinguishing Media:</b>	Solid water stream not recommended.
<b>Hazardous Decomposition Products:</b>	Vapors containing carbon dioxide, carbon monoxide, Oxides of SO <sub>x</sub> type
<b>Special Protective Equipment for Firefighters:</b>	Self-contained breathing apparatus (NEN-EN137) and full protective fire fighting clothing
<b>Specific Hazards:</b>	Flash Point: 950 °F (496 °C) Vapors are toxic

## 6. ACCIDENTAL RELEASE MEASURES

<b>Clean up:</b>	Collect for recycle into suitable containers for disposal.
<b>Personal precautions:</b>	See Section 8
<b>Environmental Precautions:</b>	Do not release into waterways or the environment

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Handle in a well-ventilated area. If adequate ventilation is not possible, use a NIOSH/MSHA or other approved dust/mist respirator or airline supplied respirator depending on concentrations. See section 8. Eye protection. Rubber gloves.
<b>Storage:</b>	Store in closed container in cool, well ventilated location. Keep away from combustibles and other reactive materials. See Section 10. Rotate stock. Do not puncture containers.

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

<b>Exposure Limits:</b>	No information unless noted below
<b>Engineering Measures to Reduce Exposure</b>	PEL for nuisance dust is 15 mg/m <sup>3</sup> for total dust and 5 mg/m <sup>3</sup> for the respirable fraction. Ventilate use area to maintain dust concentrations below the PEL. If such ventilation fails or is not available, use NIOSH/MSHA dust/mist respirator (or equivalent). Use good industrial safety practices.
<b>Hand Protection:</b>	Rubber gloves (NEN-EN 374)
<b>Eye Protection:</b>	Safety glasses with side shields (NEN-EN 165-166).
<b>Respiratory Protection:</b>	Self contained breathing apparatus in case of abnormal conditions and suitable respiratory equipment in case of insufficient ventilation (NEN-EN 149)
<b>Body Protection:</b>	Long sleeved clothing (NEN-EN 340-369-465)
<b>Hygiene Measures:</b>	When using, avoid eating, drinking, smoking.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Solid
<b>Appearance:</b>	Crystalline Powder
<b>Color:</b>	White
<b>Odor:</b>	None
<b>Melting Point/Range:</b>	Not established
<b>Autoignition Temperature:</b>	Not established
<b>Vapor Pressure:</b>	Not established
<b>Water Solubility:</b>	~ 30 g/100 ml at 77 °F (25 °C)
<b>Evaporation Rate:</b>	Not established
<b>Specific Gravity:</b>	>1 (water = 1)
<b>VOC content (%)</b>	Negligible
<b>Explosive Limits:</b>	Not a significant explosion hazard.
<b>Upper</b>	Not established
<b>Lower</b>	Not established

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under ambient conditions. Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Avoid elevated temperatures (950 °F or 496 °C) Do not use without adequate ventilation.
<b>Hazardous Decomposition Products:</b>	Decomposition vapors include SO <sub>x</sub> type

## 11. TOXICOLOGICAL INFORMATION

<b>LD50/oral/rat:</b>	Not established
<b>LD50/dermal/rabbit:</b>	Not established
<b>Subchronic toxicity:</b>	No information available
<b>Primary Irritation:</b>	Skin
<b>IARC:</b>	Not listed
<b>OSHA:</b>	Not listed
<b>NTP:</b>	Not listed
<b>Remarks:</b>	Toxicological data has been taken from products of similar composition
<b>Special Studies:</b>	None

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity Effects:</b>	Do not flush into surface water or sanitary sewer system
<b>Ecotoxicity – Invertebrate Data:</b>	Ecological damages are not known or expected under normal use
<b>Germany VCI (WGK):</b>	0

## 13. DISPOSAL CONSIDERATIONS

<b>Waste from residues/ unused products:</b>	Recycle if possible. Dispose in accordance with local regulations.
<b>EWC waste disposal number:</b>	Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with regional waste company.

## 14. TRANSPORT INFORMATION

<b>Transport Classification:</b>	Not regulated as hazardous for shipment, unless noted below, under current transportation regulations.
<b>ADR/RID/AND</b>	Not regulated
<b>IMDG</b>	Not regulated
<b>ICAO-TI/IATA</b>	Not regulated
<b>USA DOT</b>	Not regulated
<b>USA DOT/IMO</b>	Not regulated

## 15. REGULATORY INFORMATION

<b>EU Regulations:</b> Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances	Annex I, part 1 + 2: not mentioned.  With regard to possible decomposition products, see Section 10.
<b>National Regulations</b> <b>TSCA (USA)</b> <b>EINECS (Europe)</b>	Listed* Listed
<b>REACH Information</b>	Pre-registered
<b>RoHS EU Directive 2002/95/EC:</b>	In compliance. Does not intentionally contain banned chemicals.

\* "Listed" means all chemical components are on respective inventory list and/or a qualifying exemption exists for one or more components. "Not listed" indicates that one or more components is restricted into that country or region.

## 16. OTHER INFORMATION

Arichem KSS-FR is a trademark of Arichem LLC.

**MSDS Scope:** This document conforms to Regulation EC No 1907/2006 REACH  
This document is applicable to other countries and regions.

Prepared by: Arichem LLC

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