MATERIAL SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 REACH

Print date: 31 August 2013

Revision Number: 1

Revision date: 31 August 2013

1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY

Trademark:	FR - HES
Product Code:	FR-HES
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:

Dongguan Baoxu Chemical Technology Ltd Caijing Business Bldg Dongguan CN 523071

Emergency Telephone

+1(213) 632-9361 between 0800-1700 (GMT-8)

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 oxyge 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

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

6. ACCIDENTAL RELEASE MEASURES

Clean up:

Personal precautions:

Environmental Precautions:

Collect for recycle into suitable containers for disposal.

See Section 8

Do not release into waterways or the environment

7. HANDLING AND STORAGE

Handling: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.Storage:Store in closed container in cool, well ventilated location.

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

Exposure Limits:	No information unless noted below
Engineering Measures to Reduce Exposure	PEL for nuisance dust is 15 mg/m ³ for total dust and 5 mg/m ³ 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.
Hand Protection:	Rubber gloves (NEN-EN 374)
Eye Protection:	Safety glasses with side shields (NEN-EN 165-166).
Respiratory Protection:	Self contained breathing apparatus in case of abnormal conditions and suitable respiratory equipment in case of insufficient ventilation (NEN-EN 149)
Body Protection:	Long sleeved clothing (NEN-EN 340-369-465)
Hygiene Measures:	When using, avoid eating, drinking, smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:
Appearance:
Color:
Odor:

Melting Point/Range: Autoignition Temperature: Vapor Pressure:

Water Solubility: Evaporation Rate:

Specific Gravity: VOC content (%)

Explosive Limits: Upper Lower Solid Crystalline Powder White None

Not established Not established Not established

 \sim 30 g/100 ml at 77 °F (25 °C) Not established

>1 (water = 1) Negligible

Not a significant explosion hazard. Not established Not established

10. STABILITY AND REACTIVITY

Stability:

Conditions to avoid:

Hazardous Decomposition Products:

Stable under ambient conditions. Hazardous polymerization does not occur. Avoid elevated temperatures (950 °F or 496 °C) Do not use without adequate ventilation. Decomposition vapors include SO_x type

11. TOXICOLOGICAL INFORMATION

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

12. ECOLOGICAL INFORMATION		
Ecotoxicity Effects:	Do not flush into surface water or sanitary sewer system	
Ecotoxicity – Invertebrate Data:	Ecological damages are not known or expected under normal use	
Germany VCI (WGK):	0	

13. DISPOSAL CONSIDERATIONS		
Waste from residues/ unused products:	Recycle if p regulations	oossible. Dispose in accordance with local
EWC waste disposal number:	Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with regional waste company.	
Product Name: FR-HES	Page 5 of 6	Revision date: 31 August 2013

14. TRANSPORT INFORMATION

Transport Classification:

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

Not regulated Not regulated Not regulated Not regulated Not regulated

15. REGULATORY INFORMATION

EU Regulations:

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.

National Regulations TSCA (USA) EINECS (Europe)

REACH Information

RoHS EU Directive 2002/95/EC:

Pre-registered

Listed*

Listed

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

DISCLAIMER: This Material Safety Data Sheet (MSDS) information is provided to the best of our ability in compliance with known regulations and standard industry practices. The information provided on this MSDS relates only to the specific material identified herein and does not relate to its use in combination with any other materials. Baoxu Chemical believes the technical data presented here to be reliable. However, the use of this product and this information is not under the control of Baoxu Chemical; each user is responsible for making its own determination as to safe and proper handling, use of, and application of this material. Baoxu Chemical makes no representation or warranty, either express or implied, including as to merchantability or fitness for a particular purpose. Users should read and understand this information and should incorporate it into site safety programs as required by applicable global, national, regional and/or local hazard communication standards and regulations.