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-KSS

Product Code: FR-KSS

Product Description: Potassium Diphenylsulfone Sulfonate [CAS 63316-43-8]

CAS name:

Potassium 3-(phenylsulfonyl)benzenesulfonate

Product Type: Commercial Product

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)

Product Name: FR-KSS Page 1 of 7 Revision date: 31 August 2013

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
Potassium 3-(phenylsulphonyl)benzenesulphonate 63316-43-8 264-097-3	>60%	% b-w
Dipotassium 3,3'-sulphonylbis(benzenesulphonate) 63316-33-6 264-096-8	<28%	% b-w

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.

Product Name: FR-KSS Page 2 of 7 Revision date: 31 August 2013

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

Autoignition Temperature: Not established

Explosive Limits: Not a significant explosion hazard.

UpperNot establishedLowerNot established

Suitable Extinguishing Media: Use dry chemical, CO₂, water fog, or regular foam.

Unsuitable Extinguishing Media: Solid water stream not recommended.

Hazardous Decomposition Products: Vapors containing carbon dioxide, carbon monoxide,

Oxides of NOx and 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: Collect for recycle into suitable containers for disposal.

Personal precautions: See Section 8

Environmental Precautions:Do not release into waterways or the environment

Product Name: FR-KSS Page 3 of 7 Revision date: 31 August 2013

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.

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/m³ for total dust and 5

mg/m³ 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: Solid

Appearance: Crystalline Powder

Color: White Odor: None

Product Name: Arichem KSS-FR Page 4 of 7 Revision date: 31 August 2013

Melting Point/Range:Not establishedAutoignition Temperature:Not establishedVapor Pressure:Not established

Water Solubility: $25 \text{ g/}100 \text{ ml at } 77 \text{ }^{\circ}\text{F} \text{ } (25 \text{ }^{\circ}\text{C})$

Evaporation Rate: Not established

Specific Gravity: >1 (water = 1) **VOC content (%)** Negligible

Explosive Limits: Not a significant explosion hazard.

UpperNot establishedLowerNot established

10. STABILITY AND REACTIVITY

Stability: Stable under ambient conditions. Hazardous

polymerization does not occur.

Conditions to avoid: Avoid elevated temperatures (950 °F or 496 °C)

Do not use without adequate ventilation.

Hazardous Decomposition Products: 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: Not listed OSHA: Not listed NTP: 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

Product Name: Arichem KSS-FR Page 5 of 7 Revision date: 31 August 2013

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 possible. Dispose in accordance with local

regulations.

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.

14. TRANSPORT INFORMATION

Transport Classification: Not regulated as hazardous for shipment, unless noted

below, under current transportation regulations.

ADR/RID/AND

IMDG

ICAO-TI/IATA

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) Listed*
EINECS (Europe) Listed

REACH Information Pre-registered

RoHS EU Directive 2002/95/EC: In compliance.

Does not intentionally contain banned chemicals.

Product Name: FR-KSS Page 6 of 7 Revision date: 31 August 2013

^{* &}quot;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.

Product Name: FR KSS Page 7 of 7 Revision date: 31 August 2013