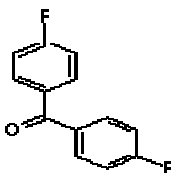


NAVIN FLUORINE INTERNATIONAL LTD		web: http://www.nfil.in mailto: speciality@nfil.in
		2nd Floor, Suntek Centre, 37/40, Subhash Road, Vile Parle (East), Mumbai-400057. India.

PRODUCT SPECIFICATION	
Title: : 4,4 - DIFLUORO BENZOPHENONE (C ₁₃ H ₈ F ₂ O)	Document No. : NFIL/QC /SPEC/FP/015/00 Effective Date : 05/11/2008

Material Code	: SPE005006
Major Packing	: UN-Certified /MS-HDPE drum 200 / 250Kg
Storage Specifications	: Stored in dry condition at room temperature in well closed container.
Structural Formula	: 
Molecular Formula	: C ₁₃ H ₈ F ₂ O
Molecular Weight	: 218.20
Synonyms	: Bis(p-fluorophenyl) ketone; Di-p-fluorophenyl ketone; Bis(4-fluorophenyl) ketone; p,p-Difluorobenzophenone; Bis(4-fluorophenyl)methanone

Sr. No.	TEST	SPECIFICATION
Product Specification:		
1	Appearance / Description	White to off-white crystalline powder
2	Moisture (By KF)	00.50% Max.
3	Purity (By GC)	99.50% Max.
4	2,4-Difluoro & 3,5-difluorobenzophenone	00.40% Max.
5	Melting Range	105 -109 °C
6	Total impurities	00.50% Max.

- Customer should discuss with business unit at speciality@nfil.in for the other requirements than specified.
- Analytical Method No. **NFIL/QC/QWI/FP/015**.



NAVIN FLUORINE
INTERNATIONAL LIMITED

MATERIAL SAFETY DATA SHEET (MSDS)

4,4'-Difluorobenzophenone

1. CHEMICAL IDENTITY

Chemical name	4,4'-Difluorobenzophenone
Synonym	Bis (P-Fluorophenyl) Ketone
Chemical Formula	C ₁₃ H ₈ F ₂ O

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients Name	4,4'-Difluorobenzophenone	CAS No.: 345-92-6
		EC No. : 206-466-3

3. PHYSICAL / CHEMICAL DATA

Boiling Point	Not available.	Vapour Pressure	Not available.
Melting Point	106- 109 ⁰ C	Solubility in water	Not available.
Vapour Density	7.5	Appearance	white to light yellow
Specific Gravity	Not available.	Odour	None reported
pH	Not available.	Other	
Physical State	Crystalline powder		

4. FIRE / EXPLOSION HAZARD DATA

Flammability		Flash Point	Not available.
Auto ignition temperature	Not available.	LEL	Not available.
Explosion sensitivity to impact		UEL	Not available.
Explosion sensitivity to static electricity			
Hazardous Combustion products			
Hazardous Polymerization	Has not been reported.		
Pyrophoric material		Corrosive	
Organic Peroxide		Oxidizer	
Explosive material		Other	

5. STABILITY & REACTIVITY DATA

Chemical Stability	Stable under normal temperatures and pressures
Incompatibility	Strong oxidizing agents, strong reducing agents
Conditions to avoid	Incompatible materials, dust generation, excess heat
Hazardous reaction / decomposition products.	Carbon monoxide, carbon dioxide, hydrogen fluoride gas

6. HEALTH HAZARD DATA

Effects of exposure / symptoms	Eye: Causes eye irritation. Skin: Causes skin irritation. May be harmful if absorbed through the skin. Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May be harmful if inhaled. Chronic: No information found.
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7. TOXICOLOGICAL INFORMATION		
LD 50 /	Not available	
Exposure Limit		
8. ECOLOGICAL INFORMATION		
No information available.		
9. PREVENTIVE MEASURES / EXPOSURE CONTROL / PERSONAL PROTECTION		
Engineering Control	Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels	
Personal Protective Equipment	<p>Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.</p> <p>Skin: Wear appropriate gloves to prevent skin exposure.</p> <p>Clothing: Wear appropriate protective clothing to minimize contact with skin.</p> <p>Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.</p>	
10. HANDLING & STORAGE		
Normal handling	Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse.	
Storage Recommendation	Store in a cool, dry place. Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances	
11. EMERGENCY / FIRST AID MEASURES		
Fire	Fire Extinguishing Medium	In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.
Exposure / First Aid Measure	Inhalation	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
	Skin	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
	Eyes	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
	Ingestion	Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water

Special Procedure	
12. ACCIDENTAL RELEASE MEASURE	
Spills/Leaks	Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.
13. DISPOSAL CONSIDERATIONS	
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.	
14. TRASPOT INFORMATION	
Proper shipping Name	Not Regulated
Hazard Class	
UN Number	
Packing Group	
Hazard Label	
15. REGULATORY INFORMATION	
European/International Regulations European Labeling in Accordance with EC Directives Hazard Symbols: XI Risk Phrases: R 36/37/38 Irritating to eyes, respiratory system and skin. Safety Phrases: S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 37/39 Wear suitable gloves and eye/face protection.	
16. NAME OF FIRM - NAVIN FLUORINE INTERNATIONAL LIMITED	
Mailing address	Post Office - Bhestan, Surat, PIN 395 023, Gujarat, India
Telephone	+91-261-2890325 to 2890329
Fax	+91-261-2890288
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