



FASCAT (R) 4210 Catalyst

Material Safety Data Sheet

Arkema Inc.

1 PRODUCT AND COMPANY IDENTIFICATION

Functional Additives

2000 Market Street
21st Floor
Philadelphia, PA 19103-3222

EMERGENCY PHONE NUMBERS:

Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 767-5089 (24Hrs)

Information Telephone Numbers	Phone Number	Available Hrs
Customer Service Number	(800) 331-7654	8:00 AM - 5:00 PM EST

Product Name FASCAT (R) 4210 Catalyst
Product Synonym(s)

Chemical Family Organotin
Chemical Formula C₈H₁₈Cl₂Sn
Chemical Name As above
EPA Reg Num NA
Product Use Catalyst

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical %	OSHA
Dibutyltin dichloride	683-18-1	> 94	Y

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

The components of this product are all on the TSCA Inventory list.

3 HAZARDS IDENTIFICATION

Emergency Overview

White crystals with a characteristic odor.

DANGER!
CAUSES EYE AND SKIN BURNS. MAY CAUSE BLINDNESS.
HARMFUL IF SWALLOWED.

Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on single exposure animal test, it is considered to be moderately toxic if swallowed and corrosive to eyes and skin. Skin contact with this material has been reported to cause itching and faint red rashes with eruptions, predominantly on the lower abdomen, groin and thigh in industrial workers. These reactions healed rapidly after removal from exposure. Single applications to the skin of humans caused delayed reddening of the skin, itching and inflammation of the hair follicles that healed within 10 days. Studies in animals indicate that this material may cause birth defects.

4 FIRST AID MEASURES

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IN CASE OF CONTACT, immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Destroy contaminated shoes.

IF INHALED, remove to fresh air.

IF SWALLOWED, do NOT induce vomiting. Give water to drink. Get medical attention immediately. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

5 FIRE FIGHTING MEASURES**Fire and Explosive Properties**

Auto-Ignition Temperature	NE		
Flash Point	> 287 deg F	Flash Point Method	PMCC
Flammable Limits- Upper	NE		
Lower	NE		

Extinguishing Media

Use water spray, carbon dioxide, foam or dry chemical.

Fire Fighting Instructions

Contain run-off from fire. Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards

When burned, the following hazardous products of combustion can occur: Carbon monoxide Carbon dioxide Tin oxides Avoid breathing fumes from fire exposed material.

6 ACCIDENTAL RELEASE MEASURES**In Case of Spill or Leak**

Stop the leak, if possible. Ventilate the space involved. Contain, sweep up, place in container for disposal. Shut off or remove all ignition sources. Prevent waterway contamination. Construct a dike to prevent spreading. Collect run-off and transfer to drums or tanks for later disposal. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Clean up procedures: Transfer to containers in preparation for later disposal. Avoid generation of vapors. Place in non-sparking containers for recovery or disposal. Remove from spill location. Decontaminate area.

7 HANDLING AND STORAGE**Handling**

Do not get in eyes, on skin or on clothing. Do not taste or swallow. Avoid breathing vapor. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Storage

This material is not hazardous under normal storage conditions; however, material should be stored in closed containers, in a secure area to prevent container damage and subsequent spillage. Upon exposure to direct sunlight, product degradation to an organic tin salt may occur.

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION****Engineering Controls**

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Eye / Face Protection

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment immediately available.

Skin Protection

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Wear face shield and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.

Respiratory Protection

When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Airborne Exposure Guidelines for Ingredients

Exposure Limit		Value
Dibutyltin dichloride		
ACGIH Skin designator	-	Y
ACGIH STEL	-Organic tin compounds, as Sn	0.2 mg/m ³
ACGIH TWA	-Organic tin compounds, as Sn	0.1 mg/m ³
ARKEMA 12-hour TWA	-Mono- and dibutyl tin compounds, as Sn	0.07 mg/m ³
OSHA TWA PEL	-Organic tin compounds, as Sn	0.1 mg/m ³

-Only those components with exposure limits are printed in this section.

-Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.

-ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.

-WEEL-AIHA Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic skin reactions.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	White crystals with a characteristic odor.
pH	NE
Specific Gravity	1.36 @ 122 deg F
Vapor Pressure	NE
Vapor Density	NE
Melting Point	100 deg F
Freezing Point	100 deg F
Boiling Point	275 deg F @ 10 mm Hg
Solubility In Water	Insoluble
Solubility in Other Materials	NE
Evaporation Rate	NE
Particle Size	NE
Percent Volatile	NE
Molecular Weight	303.84
n-Octanol/Water Partition Coefficient	NE
Oil/Water Partition Coefficient	NE
Other Physical Data	This material may appear in a transitional state between 74 deg F (solid) and 104 deg F (liquid)

10 STABILITY AND REACTIVITY

Stability

This material is chemically stable under normal and anticipated storage and handling conditions.

Hazardous Polymerization

Does not occur.

Incompatibility

Contact with strong acids may result in formation of hydrochloric acid. Contact with bases and reducing agents may result in a low energy release.

Hazardous Decomposition Products

None known

11 TOXICOLOGICAL INFORMATION

Toxicological Information

Single exposure (acute) studies indicate:

Oral - Moderately Toxic to Rats (LD50 126-224 mg/kg)

Eye Irritation - Corrosive to Rabbits

Skin Irritation - Corrosive to Rabbits (24-hr exposure)

Repeated oral and dermal exposure produced inflammation and degeneration of the bile duct in rats and mice.

Depression of the immune system and mild anemia were noted in rats following repeated dietary administration.

Anemia has also been reported in rabbits following repeated oral and dermal administration. Birth defects in

the absence of maternal toxicity were seen in the offspring of rats exposed orally during pregnancy. Genetic

changes were observed in tests using animal cells or animals. Both positive and negative responses were

observed in tests using bacteria.

**12 ECOLOGICAL INFORMATION****Ecotoxicological Information**

This material is highly toxic to *Daphnia magna* (48-hr LC50 0.87 mg/l; as tin), algae (72-hr LC50 >0.5 mg/l) and oysters (49-day LC50 0.1 mg/l). It is moderately toxic to red killifish (48-hr LC50 6 mg/l). The EC50 in a 21-day life-cycle test with *Daphnia magna* was 70 ppb. In a 110-day early life-stage study with rainbow trout the NOEL was 40 ppb.

Chemical Fate Information

Reported half-lives for this material are 5 to more than 15 days for freshwater and seawater (Japan) and 1 to 17 days for seawater (USA).

13 DISPOSAL CONSIDERATIONS**Waste Disposal**

Recover, reclaim or recycle when practical. Dispose of in an approved landfill if allowed locally. Comply with federal, state, and local regulations. Dispose of in a permitted waste management facility if incineration or landfill is not practical.

14 TRANSPORT INFORMATION

DOT Name	Organotin Compounds, solid, n.o.s
DOT Technical Name	(dibutyltin dichloride)
DOT Hazard Class	6.1
UN Number	UN3146
DOT Packing Group	PG III
RQ	NE

15 REGULATORY INFORMATION**Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)**

Immediate (Acute) Health	Y	Fire	N
Delayed (Chronic) Health	Y	Reactive	N
		Sudden Release of Pressure	N

The components of this product are all on the TSCA Inventory list.

Ingredient Related Regulatory Information:**SARA Reportable Quantities**

Dibutyltin dichloride

CERCLA RQ

SARA TPQ

NE

Massachusetts Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Massachusetts Right to Know Substance List.

Dibutyltin dichloride

New Jersey Right to Know

This product does contain the following chemical(s), as indicated below, currently on the New Jersey Right-to-Know Substances List.

Dibutyltin dichloride



16 OTHER INFORMATION

Revision Information

Revision Date 02 JAN 2007 Revision Number 6

Supercedes Revision Dated 19-OCT-2004

Revision Summary

The name of this business group has changed to Functional Additives.

Key

NE= Not Established NA= Not Applicable (R) = Registered Trademark

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