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) 4350 Catalyst
Product Synonym(s)	
Chemical Family	Organotin
Chemical Formula	Proprietary
Chemical Name	
EPA Reg Num	
Product Use	Catalyst

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical %	OSHA
Butyltin compounds	Proprietary	> 98	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)

This material is classified as hazardous under Federal OSHA regulation.

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

3 HAZARDS IDENTIFICATION

Emergency Overview

White powder with a characteristic odor.

DANGER!
CAUSES EYE BURNS. MAY CAUSE BLINDNESS.
MAY BE HARMFUL IF SWALLOWED.
MAY CAUSE SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.
MAY FORM COMBUSTIBLE DUST-AIR MIXTURES.

Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on its composition, it is anticipated to be moderately to slightly toxic if swallowed, no more than slightly toxic if absorbed through skin, moderately irritating to eyes and slightly irritating to skin. A number of other organotin compounds have been shown to be upper respiratory tract irritants, suggesting precautions against exposure.

4 FIRST AID MEASURES

4 FIRST AID MEASURES

IF IN EYES, immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.

IF ON SKIN, flush the area with plenty of water. Remove material from clothing. Wash clothing before reuse.

IF INHALED, remove to fresh air. If breathing is difficult, get medical attention.

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	NE	Flash Point Method
Flammable Limits- Upper	NE	
Lower	NE	

Extinguishing Media

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

Fire Fighting Instructions

Do NOT use a solid stream of water. A solid stream of water can cause a dust explosion. 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.
Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables.

NOTE: Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to free-fall or be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or any flammable materials which may come into contact with the material or its container.

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. If waterway contamination occurs, contact appropriate authorities. Collect run-off water 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, preparatory for later disposal. Avoid generation of vapors. Place in non-sparking containers for recovery or disposal. Remove from spill location. Decontaminate area.

6 ACCIDENTAL RELEASE MEASURES

7 HANDLING AND STORAGE

Handling

Do not get in eyes, on skin or on clothing. Do not taste or swallow. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat, sparks and flame. CONTAINER HAZARDOUS WHEN EMPTY. Emptied container retains vapor and product residue. Follow labeled warnings even after container is emptied. RESIDUAL VAPORS MAY EXPLODE ON IGNITION. DO NOT CUT, DRILL GRIND OR WELD ON OR NEAR THIS CONTAINER. Improper disposal or reuse of this container may be dangerous and/or illegal. Prevent dust accumulation.

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. It is recommended that containers be raised above floor or ground during extended storage periods to prevent container corrosion due to standing water.

Store in a well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Static electricity may accumulate when transferring material. All storage containers, including drums, cylinders and IBCs, must be bonded and grounded during filling and emptying operations.

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

Minimize skin contamination by following good industrial hygiene practice. Wearing rubber gloves is recommended. Wash hands and contaminated 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
Butyltin compounds		
ACGIH Skin designator	-	Y
ACGIH STEL	-Organic tin compounds, as Sn	0.2 mg/m3
ACGIH TWA	-Organic tin compounds, as Sn	0.1 mg/m3
ARKEMA 12-hour TWA	-Mono- and dibutyl tin compounds,	0.07 mg/m3

Butyltin compounds

	as Sn	
OSHA TWA PEL	-Organic tin compounds, as Sn	0.1 mg/m3

-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 powder with a characteristic odor.
pH	NE
Specific Gravity	NE
Vapor Pressure	NE
Vapor Density	NE
Melting Point	NE
Freezing Point	NE
Boiling Point	NE
Solubility In Water	Slight
Solubility in Other Materials	NE
Evaporation Rate	NE
Particle Size	NE
Percent Volatile	NE
Molecular Weight	NE
n-Octanol/Water Partition Coefficient	NE
Oil/Water Partition Coefficient	NE

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 bases and reducing agents may result in a low energy release. Exposure to direct sunlight causes degradation to an inorganic tin salt.

Hazardous Decomposition Products

If in fire, carbon monoxide and carbon dioxide, organic acid vapors and tin oxide fumes

11 TOXICOLOGICAL INFORMATION

Toxicological Information

Data on this material and/or its components are summarized below.

11 TOXICOLOGICAL INFORMATION

Butyltin Compounds
Single exposure (acute) studies indicate that these butyltin compounds are moderately toxic to practically non-toxic if swallowed (rat LD50 260 to >20,000 mg/kg), no more than slightly toxic if absorbed through skin (rabbit LD50 >2,000 mg/kg), slightly irritating to rabbit skin (4-hr exposure, 2.3/8.0) and moderately irritating to rabbit eyes (18/110). Following repeated oral administration, liver and kidney effects were noted in rats. Birth defects in the absence of maternal toxicity were noted in the offspring of rats orally exposed during pregnancy. Both positive and negative responses were observed in tests using bacteria.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information

Butyltin Compounds
These butyltin compounds are moderately to slightly toxic to red killifish (48-hr LC50 1 ppm to 60 mg/l). They are moderately toxic to zebrafish (96-hr LC50 >3.10 mg/l), Daphnia magna (48-hr EC50 2.0 mg/l) and algae (72-hr EC50 >1.6 mg/l). The oral LD50 for chickens is >1,600 mg/kg.

Chemical Fate Information

Butyltin Compounds
Butyltin compounds of this type have a half life of 3-15 days in water.

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	Not regulated
DOT Technical Name	
DOT Hazard Class	
UN Number	
DOT Packing Group	PG
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	N	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 CERCLA RQ SARA TPQ

SARA Reportable Quantities	CERCLA RQ	SARA TPQ
Butyltin compounds	NE	

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.

Butyltin compounds

16 OTHER INFORMATION

Revision Information

Revision Date	02 JAN 2007	Revision Number 12
Supercedes Revision Dated	30-DEC-2005	

Revision Summary

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

Key

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

FASCAT is a registered trademark of Arkema Inc.

Miscellaneous

The specific identity of the Butyltin compounds is withheld, because it is trade secret information to Arkema Inc.

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