

60/40 DISPRO

1. PRODUCT AND COMPANY IDENTIFICATION

Company

Stannica LLC
2000 Market Street
Philadelphia, Pennsylvania 19103

Stannica LLC

Customer Service Telephone Number: 1-800-446-2800
(Monday through Friday, 8:30 AM to 5:30 PM EST)

Emergency Information

Transportation: CHEMTREC: (800) 424-9300
(24 hrs., 7 days a week)
Medical: Rocky Mountain Poison Center: (303) 623-5716
(24 hrs., 7 days a week)

Product Information

Product name: 60/40 DISPRO
Synonyms: Organometallic
Molecular formula: Complex mixture
Chemical family: organic tin compound
Product use: Special applications, in general

2. HAZARDS IDENTIFICATION

Emergency Overview

Color: amber
Physical state: liquid
Odor: unpleasant

DANGER!
MAY BE FATAL IF INHALED.
CAUSES EYE AND SKIN BURNS.
MAY CAUSE BLINDNESS.
HARMFUL IF SWALLOWED.
CAUSES RESPIRATORY TRACT IRRITATION.
POSSIBLE BIRTH DEFECT HAZARD - MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA
POSSIBLE REPRODUCTIVE HAZARD - MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS BASED ON ANIMAL DATA.
MAY CAUSE EFFECTS ON:
IMMUNE SYSTEM BASED ON ANIMAL DATA

Potential Health Effects

Primary routes of exposure:
Inhalation and skin contact.

Signs and symptoms of acute exposure:

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Corrosive to skin and eyes. Causes burns. Irritating to respiratory system. If swallowed, may cause severe irritation and injury to the mouth, throat and digestive tract. May also cause: itching, redness, rash, skin eruptions, (severity of effects depends on extent of exposure).

Skin:

Corrosive. (based on components)

Inhalation:

Moderately toxic. (based on components)

Eyes:

Corrosive. (based on components)

Ingestion:

Moderately toxic. (based on components)

Repeated exposure:

Effects have been reported or are anticipated after prolonged or repeated exposure. May cause: reproductive effects, birth defects, immune system effects, (based on animal studies).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	OSHA Hazardous
Stannane, butyltrichloro-	1118-46-3	>= 30 - < 60 %	Y
Stannane, dibutyldichloro-	683-18-1	>= 30 - < 60 %	Y
Proprietary impurities	Proprietary*	>= 1 - < 5 %	Y

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

*The specific chemical identity is withheld because it is trade secret information of Arkema Inc.

This material is classified as hazardous under Federal OSHA regulation.

4. FIRST AID MEASURES

General advice:

POISON! Get medical attention immediately.

Inhalation:

If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.

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Ingestion:

If swallowed, DO NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

Flash point 243 °F (117 °C) (Tag closed cup)

Auto-ignition temperature: no data available

Lower flammable limit (LFL): no data available

Upper flammable limit (UFL): no data available

Extinguishing media (suitable):

Water spray, Carbon dioxide (CO₂), Foam, Dry chemical

Protective equipment:

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).

Further firefighting advice:

Do not allow run-off from fire fighting to enter drains or water courses.

Fire fighting equipment should be thoroughly decontaminated after use.

Cool closed containers exposed to fire with water spray.

After a fire, wait until the material has cooled to room temperature before initiating clean-up activities.

Fire and explosion hazards:

When burned, the following hazardous products of combustion can occur:

Tin oxides

Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

In case of spill or leak:

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel.

Ventilate the area. Avoid generation of vapors. Contain and collect spillage with non-combustible absorbent material such as clean sand, earth, diatomaceous earth or non-acidic clay and place into suitable properly labeled containers for prompt disposal. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. 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.

7. HANDLING AND STORAGE

Handling

General information on handling:

Do not taste or swallow.
Do not get in eyes, on skin, or on clothing.
Do not breath vapor or mist.
Keep container tightly closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Emptied container retains vapor and product residue.
Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Storage

General information on storage conditions:

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.

Storage stability – Remarks:

Upon exposure to direct sunlight, product degradation to an organic tin salt may occur.

Storage incompatibility – General:

Bases

Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Guidelines:

Stannane, butyltrichloro- (1118-46-3)

US. ACGIH Threshold Limit Values

Expressed as:	as Sn
Time Weighted Average (TWA):	0.1 mg/m ³
Expressed as:	as Sn
Short Term Exposure Limit (STEL):	0.2 mg/m ³
Expressed as:	as Sn
Skin designation	
Remarks:	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Expressed as:	as Sn
PEL:	0.1 mg/m ³

Arkema Occupational Exposure Limits

Expressed as:	as Sn
TWA: Time Weighted Average (12	0.07 mg/m ³

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hour)

Stannane, dibutyldichloro- (683-18-1)

US. ACGIH Threshold Limit Values

Expressed as:	as Sn
Time Weighted Average (TWA):	0.1 mg/m3
Expressed as:	as Sn
Short Term Exposure Limit (STEL):	0.2 mg/m3
Expressed as:	as Sn
Skin designation	
Remarks:	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Expressed as:	as Sn
PEL:	0.1 mg/m3

Arkema Occupational Exposure Limits

Expressed as:	as Sn
TWA: Time Weighted Average (12 hour)	0.07 mg/m3

Tributyltin impurities (Proprietary)

US. ACGIH Threshold Limit Values

Expressed as:	as Sn
Time Weighted Average (TWA):	0.1 mg/m3
Expressed as:	as Sn
Short Term Exposure Limit (STEL):	0.2 mg/m3
Expressed as:	as Sn
Skin designation	
Remarks:	Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Expressed as:	as Sn
PEL:	0.1 mg/m3

Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

Engineering controls:

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Respiratory protection:

Avoid breathing vapor or mist. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. 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 there may be a potential for significant exposure or 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.

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 chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing immediately and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

Eye protection:

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

9. PHYSICAL AND CHEMICAL PROPERTIES
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Color:	amber
Physical state:	liquid
Odor:	unpleasant
pH:	no data available
Density:	no data available
Specific Gravity (Relative density):	1.57 (122 °F(50 °C))
Vapor pressure:	no data available
Vapor density:	no data available
Boiling point/boiling	no data available

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range:

Freezing point: 46 - 50 °F (8 - 10 °C)

Melting point/range: no data available

Solubility in water: partly soluble

10. STABILITY AND REACTIVITY

Stability:

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

Hazardous reactions:

Hazardous polymerization does not occur.

Materials to avoid:

Bases
Reducing agents

Conditions / hazards to avoid:

See HANDLING AND STORAGE section of this MSDS for specified conditions.

Hazardous decomposition products:

Thermal decomposition giving flammable and toxic products
Carbon oxides
Tin oxides

11. TOXICOLOGICAL INFORMATION

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

Data for Stannane, dibutyldichloro- (683-18-1)

Acute toxicity

Oral:

Moderately toxic. (rat) LD50 = 126 - 224 mg/kg.

Inhalation:

Slightly to moderately toxic. (rat) 4 h LC50 = 0.06 - 4 mg/l. (Aerosol)

Skin Irritation:

Corrosive. (rabbit) (24 h)

Eye Irritation:

Corrosive. (rabbit)

Repeated dose toxicity

Oral, dermal administration to rat and mouse / affected organ(s): bile duct / signs: inflammation, degeneration

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Dietary administration to rat / affected organ(s): immune system / signs: immune suppression, anemia

Oral, dermal administration to rabbit / signs: anemia

Genotoxicity

Assessment in Vitro;

Genetic changes were observed in laboratory tests using: animal cells, bacteria

Genotoxicity

Assessment in Vivo;

Genetic changes were observed in laboratory tests using: animals

Developmental toxicity

Exposure during pregnancy. oral (rat) / Birth defects were observed. (at doses that produce effects in mothers)
Exposure during pregnancy. oral (monkey) / No birth defects were observed. (levels produced toxic effects in the mothers and offspring)

Reproductive effects

Reproduction Test. oral (rat) / Effects on fertility / (levels produced toxic effects in the mothers and offspring)

Data for Proprietary impurities (Proprietary)

Acute toxicity

Oral:

Moderately toxic. (rat) LD50 between 122 - 160 mg/kg.

Dermal:

Moderately toxic. (rabbit) LD50 = 500 mg/kg.

Inhalation:

Moderately toxic. (rat) 1 h LC50 between 0.2 - 0.4 mg/l.

Skin Irritation:

Severely irritating. (rabbit)

Eye Irritation:

Severely irritating. (rabbit)

Repeated dose toxicity

Repeated dietary administration to rat / affected organ(s): Thymus, spleen

Genotoxicity

Assessment in Vitro;

Both positive and negative responses for genetic changes were observed in laboratory tests using: bacteria, animal cells

Genotoxicity

Assessment in Vivo;

No genetic changes were observed in a laboratory test using: animals, rodent

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Developmental toxicity

Exposure during pregnancy. oral (rat) / Birth defects and toxicity were observed. (at doses that produce effects in mothers)

Reproductive effects

Reproduction Test. oral (rat) / Testicular toxicity Effects on fertility and offspring / (delays in development, increased mortality in the offspring)

Human experience

Skin contact:

Skin: severe irritation, dermatitis, burning of skin.

12. ECOLOGICAL INFORMATION

Chemical Fate and Pathway

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

Data for Stannane, dibutyldichloro- (683-18-1)

Stability in water:

Half-life \geq 5 d (marine and fresh water)

Half-life > 15 d (marine and fresh water)

Half-life = 1 - 17 d ((salt/sea water))

Biodegradation:

Not readily biodegradable (28 d) biodegradation 0 - 10 %

Data for Proprietary impurities (Proprietary)

The rate of hydrolysis is low.

Biodegradation:

Not readily biodegradable (28 d) 0 %

Partially biodegradable.

Bioaccumulation:

\leq 10,000 (Marine species)

Octanol Water Partition Coefficient:

log Pow = 2.07 (measured)

Ecotoxicology

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

Data for Stannane, butyltrichloro- (1118-46-3)

Microorganisms:

Practically nontoxic. Bacteria IC50 = 135 mg/l

Data for Stannane, dibutyldichloro- (683-18-1)

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Aquatic toxicity data:

Moderately toxic. *Oryzias latipes* (Orange-red killifish) 48 h LC50 = 6 mg/l

Aquatic invertebrates:

Highly toxic. *Daphnia magna* (Water flea) 48 h LC50 = 0.87 mg/l (as tin)

Algae:

Moderately toxic. Algae 72 h LC50 = 8 mg/l

Chronic toxicity to fish:

Early-life Stage / *Oncorhynchus mykiss* (rainbow trout) 110 d NOEL = 0.04 mg/l (flow-through test)

Chronic toxicity to aquatic invertebrates:

Highly toxic. Reproduction Test / *Daphnia magna* (Water flea) 21 d EC50 = 0.070 mg/l

Highly toxic. Oysters 49 d LC50 = 0.1 mg/l

Data for Proprietary impurities (Proprietary)

Aquatic toxicity data:

Highly toxic. *Brachydanio rerio* (zebra fish) 96 h LC50 0.0079 mg/l

Highly toxic. Silverside, tidewater 96 h LC50 0.003 - 0.009 mg/l

Aquatic invertebrates:

Highly toxic. *Daphnia magna* (Water flea) 48 h EC50 0.01 - 0.02 mg/l

Algae:

Highly toxic. *Pseudokirchneriella subcapitata* 96 h EC50 = 0.012 mg/l

Highly toxic. *Skeletonema costatum* 72 h EC50 0.99 mg/l

Microorganisms:

Moderately toxic. Respiration inhibition / Activated sludge IC50 4.1 - 42.5 mg/l

Chronic toxicity to fish:

Toxic to fish. Early-life Stage / *Oncorhynchus mykiss* (rainbow trout) 110 d NOEC 0.0004 mg/l

13. DISPOSAL CONSIDERATIONS

Waste disposal:

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations. 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. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number : 2922
 Proper shipping name : Corrosive liquids, toxic, n.o.s.
 Technical name : (Monobutyltin trichloride, Dibutyltin oxide)

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Class : 8
 Subsidiary hazard class : (6.1)
 Packaging group : II
 Marine pollutant : yes

International Maritime Dangerous Goods Code (IMDG)

UN Number : 2922
 Proper shipping name : CORROSIVE LIQUID, TOXIC, N.O.S.
 Technical name : (TIN ALKYL TRICHLORIDE, DIBUTYLTIN OXIDE)
 Class : 8
 Subsidiary hazard class : (6.1)
 Packaging group : II
 Marine pollutant : yes
 Flash point : 243 °F (117 °C) Tag closed cup

15. REGULATORY INFORMATION

Chemical Inventory Status

EU. EINECS	EINECS	Conforms to
US. Toxic Substances Control Act	TSCA	The components of this product are all on the TSCA Inventory.
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	Conforms to
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)	DSL	All components of this product are on the Canadian DSL list.
Japan. Kashin-Hou Law List	ENCS (JP)	Does not conform
Korea. Toxic Chemical Control Law (TCCL) List	KECI (KR)	Conforms to
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	Conforms to
China. Inventory of Existing Chemical Substances	IECSC (CN)	Conforms to
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	NZIOC	Conforms to

United States – Federal Regulations

SARA Title III – Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories:

Acute Health Hazard, Chronic Health Hazard

SARA Title III – Section 313 Toxic Chemicals:

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

The components in this product are either not CERCLA regulated, regulated but present in negligible concentrations, or regulated with no assigned reportable quantity.

OSHA Regulated Carcinogens (NTP, IARC, OSHA Listed):

NTP:

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC:

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA:

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

United States – State Regulations

Massachusetts Right to Know

<u>Chemical Name</u>	<u>CAS-No.</u>
Stannane, dibutyldichloro-	683-18-1

New Jersey Right to Know

<u>Chemical Name</u>	<u>CAS-No.</u>
Stannane, butyltrichloro-	1118-46-3
Stannane, dibutyldichloro-	683-18-1
Proprietary impurities	Proprietary

Pennsylvania Right to Know

<u>Chemical Name</u>	<u>CAS-No.</u>
Stannane, butyltrichloro-	1118-46-3
Stannane, dibutyldichloro-	683-18-1

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

16. OTHER INFORMATION

Latest Revision(s):

Revised Section(s): Section 7 phrase removed "standing water"

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Reference number: 000000065355
Date of Revision: 12/15/2009
Date Printed: 12/15/2009

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