

MATERIAL SAFETY DATA SHEET (MSDS)

TROY CHEMICAL CORP. 1 Avenue L Newark, NJ 07105	FOR MSDS INFORMATION: (973) 589-2500 24 HOUR EMERGENCY PHONE NUMBER CHEMTREC 1-800-424-9300	Polyphase® P100 Product Code: 567X, 10118X Effective Date: July 15, 2009 Replaces: May 23, 2008
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14. TRANSPORTATION INFORMATION

DOT	SHIPPING NAME	Non-hazardous additive/compound
	LABELS REQUIRED	None
DOT	SHIPPING NAME	UN3077, Environmentally hazardous substance, solid n.o.s. (contains: 3-iodo-2-propynyl butyl carbamate) 9, PG III, Marine Pollutant, ERG# 171
(bulk only)	LABELS REQUIRED	Class 9, Marine Pollutant
IATA	SHIPPING NAME	UN3077, Environmentally hazardous substance, solid n.o.s. (contains: 3-iodo-2-propynyl butyl carbamate) 9, PG III, ERG# 9L
	LABELS REQUIRED	Class 9, (Environmentally Hazardous - contents greater 5 Kg)
IMDG	SHIPPING NAME	UN3077, Environmentally hazardous substance, solid n.o.s. (contains: 3-iodo-2-propynyl butyl carbamate) 9, PG III, Marine Pollutant, EMS# F-A, S-F
	LABELS REQUIRED	Class 9, Marine Pollutant

15. REGULATORY INFORMATION

CERCLA SECTION 103 (40CFR302.4)

This product does not contain any chemicals that are reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

SARA SECTION 302 (40CFR355.30), SARA SECTION 304 (40CFR355.40)

This product does not contain any chemicals that require emergency planning based on Threshold Planning Quantities (TPQ) or release reporting based on Reportable Quantities (RQ).

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21)

ACUTE	CHRONIC	FIRE	REACTIVE	PRESSURE
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SARA SECTION 313 (40CFR372.65)

This product contains the following toxic chemicals subject to the reporting requirements of the Emergency Planning and Community Right-to-Know Act of 1986. This information must be included in all MSDS's that are copied and distributed for this material.

CHEMICAL NAME	CAS#	%
3-iodo-2-propynyl butyl carbamate	55406-53-6	97

CHEMICAL INVENTORIES

The ingredients of this product are all on the following Chemical Substance Inventories, are exempt from the inventories, or are otherwise compliant with inventory requirements of the governing agency.

TSCA	EINECS	DSL	AICS	ECL	MITI/ENCS	PICCS
<input checked="" type="checkbox"/>						
U.S.	Europe	Canada	Australia	Korea	Japan	Philippines
IECSC	NZIoC					
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
China	New Zealand					

CALIFORNIA PROPOSITION 65

This product does not contain any substances that are currently on the list of Known Carcinogens and Reproductive Toxins, at levels which would require a warning under the statute.

STATE RIGHT-TO-KNOW

This product is regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is exempt from State Right-to-Know labeling requirements when labeled with an approved EPA label.

EPA Registration No. 5383-50

16. OTHER

REVISIONS

Prepared by: Environmental and Regulatory Affairs Dept.

This MSDS has been revised in the following sections: (revisions indicated in left border)
Sect. 14 (Transportation Information)

ABBREVIATIONS

PNOC - Particulates not otherwise classified
 STEL - Short-term exposure limit
 TLV - Threshold limit value
 PNOR - Particulates not otherwise regulated
 TWA - Time-weighted average

HMIS RATING

HEALTH	FLAMMABILITY	REACTIVITY	PERSONAL PROTECTION	HEALTH	FLAMMABILITY	REACTIVITY
2	0	0	E	2	0	0

The information contained in this MSDS is believed to be accurate and reliable as of issue date, but no representation, guarantee, or warranty, express or implied is made to the accuracy, reliability, or completeness of the information. It is provided for the purpose of complying with hazard communication regulations. It is not intended as performance information or specifications for the product. It is the user's responsibility to determine the suitability of the product for his own use. Troy does not assume legal responsibility for reliance on information herein.
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LAST PAGE

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7. HANDLING & STORAGE Avoid contact with eyes, skin, or clothing. Avoid breathing dust. Wash thoroughly after handling. Keep container tightly closed. Use only with adequate ventilation. Ensure all equipment is grounded to prevent static discharge. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Avoid breakage of bagged material or spills of bulk material. Store away from incompatible substances in a cool, dry, ventilated area. Do not store at temperatures above 112°F (45°C) for extended periods. Do not contaminate water, food, or feed by storage or disposal. Observe all Federal, State, and Local regulations when storing or disposing of this substance.												
8. PERSONAL PROTECTION/EXPOSURE CONTROLS												
VENTILATION EYE/FACE PROTECTION SKIN PROTECTION RESPIRATORY PROTECTION OTHER	Provide adequate ventilation or local exhaust to minimize exposure. If potential for contact with material exists, use dust-resistant safety goggles or other approved eye protection. Wear impervious gloves and apron to prevent skin contact. Wear impermeable suit if exposure is possible to a large portion of the body. Whenever workplace conditions warrant the use of a respirator, a respiratory protection program meeting OSHA 1910.134 must be followed utilizing a NIOSH/MSHA-approved respirator. Eyewash should be available within the immediate work area for emergency use.											
9. PHYSICAL AND CHEMICAL PROPERTIES												
APPEARANCE ODOR INITIAL BOILING POINT MELTING POINT VAPOR PRESSURE AT 20°C. VAPOR DENSITY (Air=1)	Off-white crystalline powder Mild characteristic odor Not applicable 65-68°C (149-154°F) <1.8 x 10 ⁻⁵ mm Hg Not applicable	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">SPECIFIC GRAVITY AT 25°C. (Water=1)</td> <td style="width: 50%;">1.51-1.57</td> </tr> <tr> <td>WATER SOLUBILITY</td> <td>156 ppm (20°C)</td> </tr> <tr> <td>pH</td> <td>Not applicable</td> </tr> <tr> <td>EVAPORATION RATE (Butyl acetate=1)</td> <td><1</td> </tr> <tr> <td>% VOLATILES BY WEIGHT</td> <td>1% max</td> </tr> </table>	SPECIFIC GRAVITY AT 25°C. (Water=1)	1.51-1.57	WATER SOLUBILITY	156 ppm (20°C)	pH	Not applicable	EVAPORATION RATE (Butyl acetate=1)	<1	% VOLATILES BY WEIGHT	1% max
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WATER SOLUBILITY	156 ppm (20°C)											
pH	Not applicable											
EVAPORATION RATE (Butyl acetate=1)	<1											
% VOLATILES BY WEIGHT	1% max											
10. STABILITY & REACTIVITY												
REACTIVITY CONDITIONS TO AVOID INCOMPATIBILITY HAZARDOUS DECOMPOSITION HAZARDOUS POLYMERIZATION	Stable under normal temperatures and pressures. Avoid excessive heat >180°C (>356°F). Avoid contact with strong acids (pH <2) and bases (pH >10). Decomposition may release carbon monoxide, carbon dioxide, nitrogen oxides, and iodine vapors. Hazardous polymerization does not occur.											
11. TOXICOLOGICAL INFORMATION												
ACUTE ORAL EFFECTS LD50 (oral, rat-female) - 1056 mg/kg.; LD50 (oral, rat-male) - 1795 mg/kg. ACUTE SKIN EFFECTS LD50 (dermal, rabbit) >2000 mg/kg., slight irritant. ACUTE EYE EFFECTS Severe irritation and corrosive (rabbit). The corrosion is completely reversible and the irritation is markedly reduced by the irrigation of the eyes with water 20-30 seconds after exposure to test sample. ACUTE INHALATION EFFECTS LC50 (rat, 4 hr) - 680 mg/m ³ . SUBCHRONIC EFFECTS AND OTHER STUDIES Cholinesterase inhibition (rats) - This product administered as a single intravenous dose of up to 16 mg/kg does not inhibit cholinesterase activity. There are no known or reported effects on reproductive function or fetal development from exposure to this product. For more comprehensive toxicology information, request the Toxicology Summary for Polyphase P100 (IPBC).												
12. ECOLOGICAL INFORMATION												
ECOTOXICITY This product is toxic to fish. Do not apply directly to water or wetlands. Do not contaminate water when disposing of equipment washwaters. Data on the active ingredient, 3-iodo-2-propynyl butyl carbamate (IPBC), is as follows: LC50 (rainbow trout, 96 hr flow-through) - 67 µg/l EC50 (daphnia magna, 48 hr) - 0.16 mg/l EC50 (Scenedesmus subspicatus, 72 hr) - 22 µg/l ENVIRONMENTAL FATE This product is a pesticide and may cause adverse environmental impact. Avoid contamination of streams and sewers. The fate of the active ingredient, IPBC, is quite favorable. Degradation is rapid and occurs through biological as well as non-biological processes. Classified as readily biodegradable. Low potential to bioaccumulate. Octanol/water partition coefficient: LogP _{ow} = 2.81 COD: 1148 mg/g.												
13. DISPOSAL INFORMATION												
RCRA HAZARDOUS WASTE WASTE DISPOSAL PROCEDURE	This product is not a RCRA hazardous waste by definition. The user of this material has the responsibility to dispose of unused material, residues, and containers in compliance with all Federal, State, and Local Regulations											

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1. PRODUCT & COMPANY IDENTIFICATION				
PRODUCT NAME CHEMICAL NAME CHEMICAL FAMILY FORMULA SYNONYMS	Polyphase® P100 3-iodo-2-propynyl butyl carbamate Ester C ₈ H ₁₂ I N O ₂ IPBC, 1-iodo-2-propynyl butyl carbamate (IUPAC designation)	MANUFACTURER Troy Chemical Corporation 1 Avenue L Newark, N.J. 07105		
2. COMPOSITION/INFORMATION ON INGREDIENTS				
The listed components are considered to be hazardous based on OSHA's Hazard Communication Standard. For further regulatory information, see Section 15.				
CHEMICAL NAME	CAS#	%	AGENCY	EXPOSURE LIMITS
3-iodo-2-propynyl butyl carbamate	55406-53-6	97	Not applicable	None established
OSHA Regulatory Status: This product is classified as hazardous under OSHA regulations.				
3. HAZARDS IDENTIFICATION				
EMERGENCY OVERVIEW				
Polyphase® P100 is an off-white crystalline powder with a mild characteristic odor. May cause respiratory irritation and severe eye irritation with possible corneal injury if material comes in direct contact with the eyes. May evolve iodine vapors during combustion. Caution - Can form explosive dust-air mixtures when finely dispersed in air. Toxic to fish.				
ROUTES OF ENTRY	Ingestion, eye contact, inhalation			
INGESTION	Acute oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects. Ingestion of excessive quantities may be harmful.			
SKIN	Direct contact may cause mild skin irritation.			
EYE CONTACT	May cause severe eye irritation with possible corneal injury unless washed from eyes promptly. The irritation and injury is reversible.			
INHALATION	May cause transient respiratory irritation.			
CHRONIC EFFECTS	There are no known chronic effects.			
TARGET ORGANS	Eyes			
CARCINOGENICITY	This product (or component) is not listed as a carcinogen according to OSHA, NTP, IARC, and ACGIH.			
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE	There are no known conditions aggravated by exposure to this product.			
4. FIRST AID MEASURES				
INGESTION	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.			
SKIN CONTACT	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.			
EYE CONTACT	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.			
INHALATION	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.			
NOTES TO PHYSICIAN	IPBC is crystalline in structure. Flush eyes with water to remove crystals. Probable mucosal damage may contraindicate use of gastric lavage.			
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.				
5. FIRE FIGHTING MEASURES				
FLASH POINT	Not applicable			
FLAMMABLE LIMITS	Not applicable			
AUTOIGNITION TEMPERATURE	No data			
FLAMMABILITY CLASS	Non-hazardous			
HAZARDOUS PRODUCTS OF COMBUSTION	Carbon monoxide, carbon dioxide, nitrogen oxides, and iodine vapors.			
FIRE EXTINGUISHING MEDIA	Dry chemical, carbon dioxide, water spray, or regular foam.			
FIRE FIGHTING INSTRUCTIONS	Move container from fire area if you can do it without risk. Do not scatter spilled material with high-pressure water streams. Avoid breathing vapors, keep upwind. Positive pressure self-contained breathing apparatus with full facepiece and structural firefighters' protective clothing will provide limited protection.			
UNUSUAL FIRE & EXPLOSION HAZARDS	This material may burn but does not ignite readily. Runoff from fire control or dilution water may cause pollution. May evolve vapors of iodine. Can form explosive dust-air mixtures when finely dispersed in air. Avoid high dust concentrations and ensure that all equipment is properly grounded to prevent static discharge.			
6. ACCIDENTAL RELEASE MEASURES				
Keep unnecessary people away from spill area. Wear protective equipment as specified in Section 8. Stop leak if you can do it without risk. For small dry spills, shovel material into clean, dry container and cover loosely; move containers from spill area. For large dry spill, cover spill with plastic sheet or tarp to minimize spreading or, if wet, dike far ahead of liquid spill for later disposal. If a vacuum cleaner is used, it must rate as a dust explosion-proof type. Fine powder can form explosive dust-air mixtures. If water pollution occurs, notify the appropriate authorities. Observe all Federal, State, and Local regulations regarding notifications of accidental releases.				



TROY CORPORATION

July 19, 2010

Material Safety Manager
Core Products
1505 Parker Drive
Chetek, WI 54728

Dear Material Safety Manager:

Thank you for your interest in Troy's high performance products designed for a wide range of applications. Enclosed you will find the new product literature you requested. Below you will find important contact information.

As you'll see in the enclosed literature, Troy products offer competitive performance, compatibility, versatility, and economy. Troy products in most cases offer superior performance for longer-lasting results as well as some of the lowest use levels in the industry. Quality and value are attributes we feel you'll appreciate in Troy products as you continue your investigation for the best match for your formulation needs.

The new product literature you've received includes a wealth of information on the performance of Troy's high quality product as well as data from various tests pitting Troy against competitive offerings. In addition, you will find information on what features make the Troy product so effective. We think you'll find this information quite valuable.

In addition to the product literature, we send you an invitation to contact Troy Laboratory specialists to discuss the incorporation of Troy's high performance product into your formulation – and at the most cost effective level for optimum results. Quite simply, the best way to learn exactly what Troy can offer you is to test the Troy product in your formulations. Troy Laboratory staff will be happy to help you with this process. If you have a current formulation need and would like further information about Troy Laboratory and Technology Services, please contact us a (973)-443-4200 ext 2251. If you would like samples, please email troyorderdesk@troy.com. Should you require additional product information, email, marketing@troycorp.com.

Troy endeavors to accommodate your needs in every way possible. We look forward to the opportunity to work with you.

Sincerely,

Doris Steinmetz
Marketing Coordinator
Enclosed: General Literature

Marie Williams
Director – Corporate Marketing Services