



## MATERIAL SAFETY DATA

MSDS No: 04902  
Date: 03/20/2002  
Supersedes: 05/08/2000

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **ACRYLITE® Acrylic Sheet**

SYNONYMS: For product grades: GP, FF, OP-2, OP-3, OP-4, P-95, P-99, AR, AS, GAR, OD, DP-9, FFX, FFV, FXS, FHG, PO-3, 249, GMS, ACRYLITE® Anti-Reflective Sheet

CHEMICAL FAMILY: Acrylic Polymer

MOLECULAR FORMULA: Polymer

MOLECULAR WGT: Polymer

CYRO INDUSTRIES, 100 ENTERPRISE DRIVE, ROCKAWAY, NEW JERSEY 07866

EMERGENCY PHONE: For product emergency involving spill, leak, fire, exposure or accident call CHEMTREC: 1-800/424-9300. Outside the USA and Canada call 1-703/527-3887.

Product Inquiries: CYRO Industries Technical Center 1-203/795-6081

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

#### OSHA REGULATED COMPONENTS

COMPONENT	CAS. NO.	%	TWA/CEILING	REFERENCE
Methyl methacrylate	000080-62-6	<1.5	100 ppm	OSHA
			50 ppm	ACGIH
			100 ppm STEL	ACGIH
Methyl acrylate	000096-33-3	0-0.5	10 ppm (skin)	OSHA
			2 ppm (skin)	ACGIH
Ethyl acrylate	000140-88-5	0-0.5	25 ppm (skin)	OSHA
			5 ppm	ACGIH
			15 ppm STEL	ACGIH
				IARC - 2B

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

APPEARANCE AND ODOR: Clear, tinted and opaque sheet of various sizes and various grades; characteristic odor.

#### STATEMENTS OF HAZARD:

NO WARNING STATEMENT

#### POTENTIAL HEALTH EFFECTS

##### EFFECTS OF OVEREXPOSURE:

Overexposure to this material is not likely to cause significant acute toxic effect.

Refer to Section 11 for toxicology information on the regulated components of this product.

### 4. FIRST AID MEASURES

Material is not expected to be harmful by ingestion. No specific first aid measures are required.

In case of skin contact, wash affected areas of skin with soap and water.

In case of eye contact, immediately irrigate with plenty of water for 15 minutes.

Material is not expected to be harmful if inhaled. If inhaled, remove to fresh air.

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## 5. FIRE FIGHTING MEASURES

### FLAMMABLE PROPERTIES

FLASH POINT: Not applicable

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FLAMMABLE LIMITS

(% BY VOL): Not applicable

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AUTOIGNITION TEMP: 830 F; 443 C

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DECOMPOSITION TEMP: >500 F; 260C

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### EXTINGUISHING MEDIA AND FIRE FIGHTING INSTRUCTIONS

Use water, carbon dioxide or dry chemical to extinguish fires. Wear self-contained, positive pressure breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Sweep up spills and place in a waste disposal container. Flush area with water.

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## 7. HANDLING AND STORAGE

None

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT (PPE)

Engineering controls are not usually necessary if good hygiene practices are followed. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. Avoid unnecessary skin contact. Impervious gloves are recommended to prevent prolonged skin contact. For operations where eye or face contact can occur, eye protection is recommended.

Cutting, grinding or sanding may generate small quantities of methyl methacrylate monomer and may create nuisance particulates and respirable dust particles. Respiratory protection appropriate for this dust may be required. Refer to the Regulated Component Section for potential hazardous components in the dust.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, tinted and opaque sheet of various sizes and various grades; characteristic odor.

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BOILING POINT: Not applicable

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MELTING POINT: Not applicable

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VAPOR PRESSURE: Not applicable

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SPECIFIC GRAVITY: 1.19

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VAPOR DENSITY: Not applicable

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% VOLATILE (BY WT): Negligible

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pH: Not applicable

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SATURATION IN AIR (% BY VOL): Not applicable

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EVAPORATION RATE: Not applicable

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SOLUBILITY IN WATER: Negligible

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VOLATILE ORGANIC CONTENT: Not applicable

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## 10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: None known

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POLYMERIZATION: Will Not Occur

CONDITIONS TO AVOID: None known

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INCOMPATIBLE MATERIALS: Strong oxidizing agents.

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HAZARDOUS DECOMPOSITION PRODUCTS: carbon monoxide; carbon dioxide; methyl methacrylate; methane; ethane; acetylene; methyl isobutyrate; methyl propionate; and/or; water

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## 11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 3. HAZARDS IDENTIFICATION. Toxicological information on the OSHA regulated components of this product is as follows:

The acute oral (rat) LD50 value for methyl methacrylate monomer (MMA) is approximately 8,400 mg/kg. Liquid MMA may cause primary eye or skin irritation. Allergic skin reactions may occur by repeated direct contact.

Vapor overexposure may cause irritation to the eyes or respiratory tract and may cause central nervous system depression. MMA was not carcinogenic to rats and mice when inhaled at concentrations up to 1000 ppm for 2 years in studies sponsored by the National Toxicology Program. These concentrations produced chronic nasal irritation resulting in inflammation of the nasal cavity and degeneration of the olfactory epithelium.

Methyl acrylate has a sharp, sweet odor and is moderately toxic by all routes of exposure. The acute oral (rat) and acute dermal (rabbit) LD50 values are 300 mg/kg and 1300 mg/kg, respectively. Methyl acrylate is a strong skin irritant and produces pronounced stinging of the eye upon contact followed by moderate to severe irritation. The 4-hour LC50 (rats) is approximately 1000 ppm (3.52 mg/L). Rats exposed to methyl acrylate vapors at concentrations up to 135 ppm for 5 days per week for 2 years had irritation of the eyes and nasal passages. There was no carcinogenic effect from treatment with methyl acrylate in this study.

Ethyl acrylate has acute oral (rat) and dermal (rabbit) LD50 values of 800 mg/kg and greater than 1800 mg/kg, respectively. The acute 4-hour inhalation LC50 (rat) is 2180 ppm. Direct contact caused mild eye and skin irritation when tested in rabbits. In chronic gavage studies in mice and rats, gastrointestinal tumors were seen in both species. Ethyl acrylate is a chemical known to the State of California to cause cancer.

California Proposition 65 Warning (applicable in California only) - This product contains (a) chemical(s) known to the State of California to cause cancer.

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## 12. ECOLOGICAL INFORMATION

No aquatic LC50, BOD, or COD data available.

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OCTANOL/H<sub>2</sub>O PARTITION COEF.: Not applicable

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## 13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the CYRO product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this MSDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristic. There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 5 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. CYRO encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. CYRO recommends that organic materials classified as

RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. CYRO has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

## 14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

SHIPPING NAME:	<b>D.O.T. SHIPPING INFORMATION</b> NOT APPLICABLE/NOT REGULATED	<b>IMO SHIPPING INFORMATION</b> NOT APPLICABLE/NOT REGULATED
HAZARD CLASS/ PACKING GROUP:	Not Applicable	Not Applicable
UN NUMBER:	Not Applicable	Not Applicable
IMDG PAGE:	Not Applicable	Not Applicable
D.O.T. HAZARDOUS SUBSTANCES:	(PRODUCT REPORTABLE QUANTITY) Not Applicable	Not Applicable
TRANSPORT LABEL REQUIRED:	None Required	None Required

SHIPPING NAME:	<b>ICAO/IATA</b> NOT APPLICABLE/NOT REGULATED	<b>TRANSPORT CANADA</b> NOT APPLICABLE/NOT REGULATED
HAZARD CLASS:	Not Applicable	Not Applicable
SUBSIDIARY CLASS:	Not Applicable	Not Applicable
UN / ID NUMBER:	Not Applicable	Not Applicable
PACKING GROUP:	Not Applicable	Not Applicable
TRANSPORT LABEL REQUIRED:	None Required	None Required
PACKING INSTR:	PASSENGER Not Applicable CARGO Not Applicable	Not Applicable
MAX NET QTY:	PASSENGER Not Applicable CARGO Not Applicable	Not Applicable

### ADDITIONAL TRANSPORT INFORMATION

TECHNICAL NAME (N.O.S.): Not Applicable

## 15. REGULATORY INFORMATION

### INVENTORY INFORMATION

US TSCA:	This product is considered an article and is therefore excluded by definition from the requirements of the Toxic Substances Control Act, 15 U.S.C. 2601 et. seq.
CANADA DSL:	This product is an article and in accordance with subsection 3 of the Canadian Environmental Protection Act its components are exempt from the reporting requirements for the Domestic Substances List.
EEC EINECS:	This product, because it is an article of commerce, is exempt from the provisions of Directive 67/548/EEC, amended 79/831/EEC.

### OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

COMPONENT	CAS. NO.	%	TPQ(lbs)	RQ(lbs)	S313	TSCA 12B
Methyl methacrylate	000080-62-6	<1.5	NONE	1000	YES	NO
Methyl acrylate	000096-33-3	0-0.5	NONE	NONE	YES	NO
Ethyl acrylate	000140-88-5	0-0.5	NONE	1000	YES	NO

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA
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Not Applicable under SARA TITLE III
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## 16. OTHER INFORMATION

### NFPA HAZARD RATING (National Fire Protection Association)

Fire	1	FIRE: Materials that must be preheated before ignition can occur.
Health	0	HEALTH: Materials that under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.
Reactivity	0	REACTIVITY: Materials that in themselves are normally stable, even under fire exposure conditions.
Special	—	

### REASON FOR ISSUE:

Revised Section 1

Randy Deskin, Ph.D., DABT

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