

Section 1: IDENTIFICATION

Product Name:

ABS SHEET

Recommended use and restrictions on use:

General Use: Dunnage, Building Construction

Restrictions on Use: Do not use without controls in place

Manufacturer/Supplier:

Primex Plastics Corporation
1235 North "F" Street
Richmond, Indiana 47374

Emergency Response Number
(800) 222-5116

Section 2: HAZARD IDENTIFICATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on the existing health data for individual components which comprise the mixture.

i. The additives in this product are bound in a thermoplastic resin matrix. In accordance with GHS for the classification of the product, the hazard potential may be assessed with respect to the physico-chemical form and/or bioavailability of the individual components in the thermoplastic resin.

ii. Where GHS classifications are shown below, these are based on individual components in the thermo resin matrix. Under typical use conditions for the product, these hazards components are unlikely to contribute to the workplace exposure. Please read the entire safety data sheet and/or consult an EHS professional for a complete understanding.

Emergency Overview

Classification

GHS Symbol: Not Applicable

OSHA Regulatory Status

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Labeling

Not Classified

This product contains no substances which at their given concentration, are considered to be hazardous to health.

Appearance: Plastic Sheet

Physical State: Solid

Odor: None

Signal Word: Not Applicable

Hazards not otherwise classified

Combustible Dust: If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form. Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat. In the event that combustible dust is generated, the hazard is posed only by the size of the particle not its chemical content because all monomers, additives and pigments are totally encapsulated within the resin and cannot be released in pure form.

Additional Information

Can burn in a fire creating dense, toxic smoke. Molten plastic can cause severe thermal burns. Fumes produced during melt processing may cause eye, skin and respiratory tract irritation.

Disposal

Dispose of contents in accordance with local, regional, national and international regulations.

Section 3: COMPOSITION INFORMATION ON INGREDIENTS

Components	CAS No.	Weight %
Acrylonitrile/Butadiene/Styrene Terpolymer	9003-56-9	>=1%
Styrene	100-42-5	<=0.3%

Section 4: FIRST-AID MEASURES**Eye Contact**

If there is contact to the eyes with molten material, rinse with plenty of water and seek immediate medical attention.

If fines enter the eye, rinse with water for 15 minutes and seek immediate medical attention if irritation develops.

Skin Contact

If skin has contact with molten material, place affected area under cold running water.

Seek medical attention for removal of material from the affected area.

Inhalation

Remove affected individual to fresh air, seek medical attention if difficulties in breathing occur.

Ingestion Contact

Not Applicable

General

Gasses and fumes during thermal processing or the decomposition of this material may irritate eyes, skin, or respiratory

Section 5: FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Dry chemical extinguisher, carbon dioxide, water, foam

Do not use a solid water stream as it may scatter and spread the fire.

Specific hazards arising from the chemical

Irritating and toxic gasses and aerosols may be generated by thermal decomposition. Hazardous combustion products include: carbon oxides, hydrocarbon fragments, hydrogen cyanide, nitrogen oxides.

Special protective actions for firefighters

Avoid inhalation of materials or combustion by-products, fight fire from a safe distance and a protected location..

Firefighters should be equipped with self-contained breathing apparatus.

Specific Hazards

Precautionary measures should be taken against static discharges and dust which may form an explosive mixture in air.

Fire and explosion protection:

Avoid generating dust during production; fine dust particles dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Section 6: ACCIDENTAL RELEASE MEASURES

Processing dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture.

Avoid cleaning dust surfaces with compressed air.

Section 7: HANDLING AND STORAGE**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practices.

Electrostatic charge may accumulate and create a possible hazardous condition when handling this material. To minimize this hazard, bonding and grounding of equipment may be necessary.

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Protect against flame and intense heat.

Use with adequate ventilation.

Conditions for safe storage, including any incompatibilities

Store in well ventilated area, avoid extreme heat and any sources of ignition, or open flames.

Secondary use / reprocessing

When reprocessing material for secondary use, ground all handling equipment. Keep material and dust produced away from high heat and flame. Use good housekeeping practices when reprocessing material.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**Exposure Limits**

Chemical Name	US OSHA PEL (8Hr)	ACGIH	Canada - (8Hr.)	Mexico OEL Data
Styrene 100-42-5	FRL_STEL: 425 mg/m ³ 100 ppm; FRL_TWA 215 mg/m ³ ; 50 ppm TL_PEL:	STEL: 40 ppm; TWA: 20 pp; Notations: Not classified as a human carcinogen BEI; Crit Eff: CNS impairment, peripheral neuropathy upper respiratory tract irritation	OEL_15 mins: 170 mg/m ³ , 40 ppm OEL_15 mins: 170 8 hr.: 85 mg/m ³ 20 ppm	LMPE-PPT: 50 ppm 215 mg/m ³ ; LMPE-CT 100 ppm, 425 mg/m ³ CONN: SKIN

Engineering Controls

The use of local exhaust ventilation is recommended to control emissions near the source.

Personal Protective Equipment**Respiratory Protection**

During processing, respiratory protection may not be necessary if ventilation is adequately provided.

(In countries where applicable): If ventilation is not adequate to maintain airborne concentrations below the recommended exposure limits an approved respirator must be worn.

At excessive processing temperatures, breathing protection may be required.

Dust safety masks may be recommended when the dust concentration is excessive.

Eye Protection

Safety glasses with side-shields are recommended.

Hand Protection

Gloves may be required when processing the sheet due to sharp edges and when plastic is in the molten state.

If material is heated, wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION Cont.**General**

Avoid contact with molten material on the skin, eyes and clothing. Handle product in accordance with good industrial hygiene and safety practices.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid ABS Sheet
Odor	Odorless
Melting point/Freezing point	Not Applicable
Evaporation rate	Negligible
Solubility	Insolubility (solubility in water)
Vapor Pressure	Negligible
Specific Gravity	>1;(water = 1)
Auto ignition Temperature	No information available
VOC content (%)	Negligible
Explosive Limits - Upper/Lower	Not determined

Section 10: STABILITY AND REACTIVITY**Chemical Stability**

This product in the finished state (sheet) is stable.

Possibility of hazardous reactions

Irritating or toxic gases may occur by fire.

Section 10: STABILITY AND REACTIVITY CONT.**Conditions to avoid**

Avoid contact with incompatible materials and elevated temperatures. Do not allow product to remain in barrel at elevated temperatures for extended periods of time.

Hazardous decomposition products

Process vapors under the recommended processing conditions may include trace levels of hydrocarbons, styrene, acrylonitrile, acrolein, acetaldehyde, acetophenone, ethyl benzene, cumene, alpha methylstyrene, 4-vinylcyclohexene, phenols.

Section 11: TOXICOLOGICAL INFORMATION**Acute Toxicity****LD50/oral/rat:**

>5000 mg/kg (estimated)

LD50?dermal/rabbit:

>2000 mg/kg (estimated)

Inhalation:

Unlikely in sheet form.

Eye Contact:

Unlikely in sheet form but reprocessed material (dust and reground material) may be irritating to the eyes.

Skin Contact:

Unlikely if processed at normal temperature and industrial use.

Ingestion:

Unlikely in sheet form

Chronic Toxicity

Styrene: Genotoxicity - In several in vitro bacterial mutagenicity tests using Salmonella Typhimurium tester strains TA 98, TA 100, TA 1535, and TA 1537 at concentrations up to 1 mg/plate, Styrene has been found to test negative without metabolic activation and has tested either equivocal or negative with metabolic activation. In standard mammalian cells tested in vitro, no mutagenicity was observed. When using in vivo test systems, Styrene did not induce chromosome aberrations in mouse bone marrow cells but did increase sister chromatid exchanges (SCE) at concentrations of 250 ppm and above for 14 days.

Subchronic Toxicity

Styrene: Many repeat dose toxicity studies are available in several test animal species following both oral and inhalation exposure. In rats dosed orally, effects on liver (changes in enzyme levels and increased weight) were consistently observed at concentrations of 350 mg/kg and higher. Gastrointestinal irritation and kidney weight changes are observed at higher doses. Findings were similar for beagle dogs. The no observed effect levels (NOEL) ranged from 100 mg/kg/day to about 300 mg/kg/day. Depending on the duration of exposure. A series of inhalation studies were conducted in the 1940s and 1950s. Rats, guinea pigs, rabbits, and monkeys were exposed up to 8 hours/day, 5 days /week for 6 months to 650 to 2000 ppm (3-9.3 mg/L) and consistent signs of significant eye and nose irritation were observed at 1300 ppm and above. Histopathological lesions at this concentration typically consisted of pulmonary lesions.

IARC:

Not Listed. Group 2B (possible human carcinogen) - In subsequent reviews in 1994 and 2002, IARC chose to maintain its classification for styrene. In chronic inhalation studies, mice, but not rats develop lung tumors following styrene exposure, even though both species form DNA adducts.

OSHA:

Not Regulated

NTP:

Not tested

Remarks:

The toxicological data has been taken from products of similar composition.

Special Studies

Styrene: A reproduction study in rats exposed to 125 and 250 ppm in drinking water (approximately 14-21 mg/kg/day) produced no treatment-related effects on reproductive performance over 3-generations. The only treatment related findings were reduced pup survival index in the F1 and F2 offspring. There was no evidence of developmental effects and no other effects were reported. The parental NOEL was 250 ppm and the NOEL for the F1 and F2 offspring was 125 ppm. In developmental toxicity studies in rats, rabbits, and hamsters, Styrene was not a selective toxicant to the fetus and was toxic at only those doses that produced maternal toxicity.

In humans, Styrene is associated with central nervous system depression (headache, fatigue, and dizziness) at inhalation concentrations greater than 50 ppm. Styrene has also been reported to reduce sensory nerve conduction in occupation settings after exposure to 100 ppm or more. Styrene has also been reported to produce color vision deficiencies (dyschromatopsia) at concentrations greater than 8 ppm (averaging 24 ppm). Twelve epidemiology studies have been reported for Styrene and half have supported the hypothesis that Styrene produces lymphatic and hematopoietic cancers (LHC). However those that show an increase of LHC has generally been small in size (limited statistical power), have shown no dose-response relationship, and/or had multiple chemical exposures. Of the six studies that have not shown an association with Styrene and LHC, these studies tended to be larger in size (higher statistical power), had an older study population, and had good exposure data. Overall, the weight of evidence suggests that there is an association of LHC and Styrene exposure in humans.

Section 11: TOXICOLOGICAL INFORMATION CONT.

In a recent inhalation cancer bioassay, Sprague Dawley derived rats (70/sex/group) were exposed whole body to Styrene vapor at 0, 50, 200, 500, or 1000, ppm 6 hr./day, 5 days/week for 104 weeks. Males exposed to 500 and 1000 ppm and females exposed to 200 ppm and higher gained significantly less weight than the controls. There were no changes of toxicological significance in hematology, clinical chemistry, urinalysis, or organ weights. Styrene-related non-neoplastic histopathologic changes were confined to the olfactory epithelium of the nasal mucosa. The incidence and severity were related to dose. There was no evidence that styrene exposure caused treatment related increases of any tumor type in males or females or in the number of tumor bearing rats in the exposed groups compared to controls. In 2-year carcinogenicity bioassays conducted by the National Toxicology Program, rats and mice (50/sex/group) received 0, 500, 1000, or 2000 mg/kg/day and 0, 150, or 300 mg/kg/day, respectively, via oral gavage. In male or female rats and female mice there was no significant difference in tumor incidence when compared to the control groups. In male mice there was a positive association between styrene dose and the incidence of the combination of adenomas and carcinomas of the lung. However, due to the high background incidence of this tumor type in male mice, no firm conclusion was drawn for the carcinogenicity. In a study that administered styrene (125 and 250 ppm) in the drinking water of rats for 2 years, there was no evidence of carcinogenicity. In other chronic inhalation toxicity studies, rats were exposed to styrene via inhalation at concentrations up to 300 ppm for 4-6 hours/day, 5 days/week, for 1 year or up to 1000 ppm for 2 years. There was a slightly increased but not statistically significant, incidence of mammary tumors in the females in both studies. Because the control incidence was also high and there was no dose-response relationship the studies were considered to be negative.

Section 12: ECOLOGICAL INFORMATION

In plastic sheet form, no information is available but no ecological hazard is suspected.

Biodegradability:

This material is not expected to be readily biodegradable.

Section 13: DISPOSAL CONSIDERATIONS**Waste Information**

Use material for its intended purpose and recycle if possible.

Transfer to an approved disposal area in accordance with federal, state and local regulations.

Section 14: TRANSPORT INFORMATION**DOT Classification**

Not a DOT controlled or regulated material (U.S.A).

Section 15: NATIONAL AND/OR INTERNATIONAL REGULATORY INFORMATION**International Inventories**

TSCA (USA):	Listed
DSL (Canada):	Listed
EINECS/ELINCS (Europe):	Listed
ENCS (Japan):	Listed
IECSC (China):	Listed
KECL (Korea):	Listed
PICCS (Philippines)	Listed
AICS (Australia):	Listed

Other Inventory Information

A "Listed" entry above means all chemical components are on the respective inventory list and/or a qualifying exemption exists for one or more components.

Section 15: NATIONAL AND/OR INTERNATIONAL REGULATORY INFORMATION Cont.

SARA (313) Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)

This product contains a chemical or chemicals that are subject to the reporting requirements of the act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	Cas Number	Weight	CERCLA/SARA 313
Styrene	100-42-5	0.1-1.0	0.1

SARA (311, 312) Hazard Class

Acute Health Hazard	N
Chronic Health Hazard	N
Fire Hazard	N
Sudden Release of Pressure Hazard	N
Reactive Hazard	N

Canada

This material has been classified in accordance with the hazard criteria of the Controlled Products Regulations the (CPR) and the MSDS contains all the information required by CPR.

WHMIS Hazard Class

Non-controlled

California Proposition 65:

Components in the product known to the state of California to cause cancer and/or reproductive effects, are listed below:

Chemical Name	Weight %	California Proposition 65:
Acrylonitrile - 107-13-1	0.01 - 0.10	Type of Toxicity: Cancer

RoHS EU Directive 2002/95/EC:

This product complies with RoHS - It does not intentionally contain banned chemicals.

Section 16: OTHER INFORMATION

NFPA Classification:

Health Hazard : 0
 Fire Hazard: 1
 Reactivity Hazard: 0



Disclaimer:

The information in this SDS pertains only to the product as shipped. Information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

This safety data sheet is provided by Primex Plastics Corp. Pursuant to OSHA regulations, 29 CFR 1910.1200. The information provided in the sheet is true and accurate as dated, to the best of our knowledge. The information is not intended to cover every conceivable use or handling of the material, and actual conditions of use and handling may require considerations or information other than, or in addition to, that which is contained in this sheet.

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