Polyester Resin
Safety Data Sheet

Product Identifier Polyester Resin
Other Means of Identification
not applicable
Other Identification not applicable
Recommended Use
SDS No.
Product Family Polyester
Emergency Phone No.

SECTION 1. IDENTIFICATION

Manufacturer/Supplier Identifier
Not applicable.
0172
CANUTEC Phone Number 24 Hours, 613-996-6666, IN THE EVENT OF EMERGENCIES OF DANGEROUS GOODS
Restrictions on Use Not applicable.
Label Elements

SECTION 2. HAZARD IDENTIFICATION

Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
Harmful if inhaled.
May cause respiratory irritation.
Suspected of damaging the unborn child.
Causes damage to organs (auditory (hearing) system) through prolonged or repeated exposure if inhaled.
Obtain special instructions before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
IF exposed or concerned: Get medical advice or attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Dispose of contents and container in accordance with local, regional, national and international regulations.
Classification
Flammable liquid - Category 3; Acute toxicity (Inhalation) - Category 4; Skin irritation - Category 2; Eye irritation -
Category 2A; Skin sensitization - Category 1; Reproductive toxicity - Category 2; Specific target organ toxicity (single
exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 1; Aspiration hazard - Category 1
Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).

Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
IF exposed or concerned: Get medical advice or attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name CAS No. % Other Identifiers

Mixture:

Other Names

Styrene 100-42-5 30-60

Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment).
Remove source of exposure or move to fresh air. If breathing is difficult, trained personnel should administer
emergency oxygen if advised to do so by Poison Center or doctor. If experiencing respiratory symptoms (e.g.
coughing, shortness of breath, wheezing), call a Poison Center or doctor.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and
thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. If skin irritation occurs, get medical
advice or attention.

Eye Contact

Remove contact lenses, if present and easy to do. Immediately rinse the contaminated eye(s) with lukewarm, gently
flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or
attention.

Ingestion

Rinse mouth with water. Do not induce vomiting. Immediately call a Poison Center or doctor.

First-aid Comments

If there is a risk of vomiting, the stomach should be emptied only after placement by a qualified person of an
artificial airway.

Special Instructions

There is no specific antidote; treat according to the symptoms of the affected person.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Immediate Medical Attention and Special Treatment

Medical Conditions Aggravated by Exposure

Inhaling vomit can seriously damage the lungs. This danger is greater than the risk of absorption of the product.
Upper respiratory tract, lung (example of type Asthma).

Target Organs

Styrène : in case of prolonged exposure: Headache, dizziness, myasthenia, coordination disorders, nausea,
unconscious state.

Most Important Symptoms and Effects, Acute and Delayed

None known.

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder or appropriate foam.

Unsuitable Extinguishing Media

High volume water jet.

Specific Hazards Arising from the Product

During a fire irritating or toxic decomposition products may be generated. Wear full fire equipment (complete bunker
equipment) and respirator. May accumulate in hazardous amounts in low-lying areas especially inside confined
spaces, resulting in a fire and/or health hazard. Cool the storage container with water if exposed to fire. Do not allow
contaminated extinguishing water to enter drains or waterways.

Special Protective Equipment and Precautions for Fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary. Fight fire from a safe distance or a protected
location.
In case of fire, wear self-contained breathing apparatus.

SECTION 5. FIRE-FIGHTING MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Remove or
isolate incompatible materials as well as other hazardous materials.

Environmental Precautions

If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Absorb
with inert material and place spilled material in a suitable waste container.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: stop or reduce leak if safe to do so. Contain and soak up spill with absorbent that does not react
with spilled product. Put the recovered product and absorbent in a container for disposal in accordance with local /
national regulations. Large spills or leaks: stop or reduce leak if safe to do so. Use spark-proof tools and
explosion-proof equipment. Contain and soak up spill with absorbent that does not react with spilled product. Do not
direct water at spill or source. Get expert advice before treating the spilled product with other chemicals to make it less
hazardous. Contact emergency services and manufacturer/supplier for advice.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Precautions for Safe Handling
Do not breathe in this product. Avoid breathing in this product. Prevent all skin contact. Avoid repeated or prolonged
skin contact. Do not get in eyes, on skin or on clothing. Do not swallow. Avoid release to the environment. Keep away
from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Conditions for Safe Storage
No smoking. Store in an area that is: store in a closed container. Out of direct sunlight and away from heat and ignition
sources, well-ventilated. Do not cut or puncture empty containers. Protect product from contact with water, including
humidity. Prevent rainwater and ground water from reaching storage area. Comply with all applicable health and safety
regulations, fire and building codes.

SECTION 7. HANDLING AND STORAGE

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ACGIH TLV® OSHA PEL
Chemical Name TWA STEL TWA Ceiling
Control Parameters
AIHA WEEL
8-hr TWA TWA
Styrene 20 ppm 40 ppm
Appropriate Engineering Controls
The hazard potential of this product is relatively low. General ventilation is usually adequate. Use non-sparking
ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this
product is used and stored. Provide eyewash and safety shower if contact or splash hazard exists.

Appropriate Engineering Controls
Individual Protection Measures
Skin Protection
Respiratory Protection
Eye/Face Protection
When the concentration exceeds the specified limit levels, it is recommended that a NIOSH approved respirator be
used. When the concentration exceeds the protection factor of the respirator, it may be necessary to use a full
facepiece respirator or self-contained breathing apparatus. Use a properly fitted air respirator that meets an
approved standard. Respirator selection should be based on known or anticipated exposure levels, product
hazards, and safe use limits for the chosen respirator.
Depending on the work required. There is a risk of overexposure. Wear chemical protective clothing e.g. gloves,
aprons, boots.
Safety glasses with side shields.
The hazard potential of this product is relatively low. General ventilation is usually adequate. Use non-sparking

ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this
product is used and stored. Provide eyewash and safety shower if contact or splash hazard exists.
pH Not available
Appearance Clear pink - pink viscous liquid. Particle Size: Not available
Partition Coefficient,
n-Octanol/Water (Log Kow)
2,96 (Styrene)
Odor Ethereal
Vapor Pressure 3,9 kPa at 20 ºC (Methyl methacrylate)
Odor Threshold 0,01 - 0,1 ppm (Styrene)
Vapor Density (air = 1) 3,6
Initial Boiling Point/Range 145 ºC
Evaporation Rate < 1 (n-butyl acetate = 1)
Flash Point 31 ºC (closed cup) (Styrene)
Melting Point/Freezing Point -23,8 ºF (-31,0 ºC) (melting); -31 ºC (Styrene) (freezing)
Relative Density (water = 1) 1,1 - 1,3 at 25 ºC
Upper/Lower Flammability or
Explosive Limit
6,1% (Styrene) (upper); 1,1% (Styrene) (lower)
Solubility 0,32 g/L (Insoluble (less than 1 mg/L)) in water; Moderately soluble in ketones (e.g. acetone).
Auto-ignition Temperature 490 ºC (914 ºF)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Molecular Formula Not available
Molecular Weight Not available
Decomposition Temperature Not available
Bulk Density Not available
Viscosity 0,696 mm2/s at 25 ºC (kinematic); 0,6 centipoises at 25 ºC (dynamic)
Surface Tension Not available
Vapor Pressure at 50 deg C Not available
Saturated Vapor Concentration Not available
Critical Temperature Not available
Electrical Conductivity Not available

Basic Physical and Chemical Properties

Physical State Liquid

Other Information

Flammability (solid, gas) Flammable gas. (Styrene)

Saturated Vapor Concentration Not available

Chemical Stability
Normally stable.
Conditions to Avoid
Open flames, sparks, static discharge, heat and other ignition sources.
Incompatible Materials
Oxidizing agents (e.g. peroxides), strong acids (e.g. hydrochloric acid), strong oxidizing agents (e.g. perchloric acid).
Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not occur. Hazardous
decomposition products are formed under fire conditions. Carbon dioxide, Carbon monoxide.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Skin Corrosion/Irritation

Human experience and animal tests show mild irritation. (Contact dermatitis).

Serious Eye Damage/Irritation

(Styrene) human experience shows serious eye irritation.

SECTION 11. TOXICOLOGICAL INFORMATION

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

(Styrene) irritating to the respiratory tract. Harmful If there is an increase in concentration: Inhalation produces a
narcotic effect / a feeling of intoxication. Risk of resorption.

Skin Absorption

May be harmful.

Ingestion

If ingested, this product could be aspirated and cause lung damage.
(Styrene) proven risk: Serious effects on organs: Causes of damage to the auditory system, if there are prolonged and
repeated exposures. If inhaled: several studies with workers indicate that the central and peripheral nervous systems
are the main targets of styrene following repeated exposures.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Respiratory and/or Skin Sensitization

(Styrene) only one case of skin sensitization was reported in a patient with no history of skin allergy. In this case, the
styrene had been purified and did not contain an inhibitor; an epicutaneous test performed with the inhibitor only was
negative. Skin tests in 303 controls were negative. Finally, in another study, a case of cutaneous styrene sensitization
was reported but in fact the test was performed with a styrene-containing resin and not with styrene only.

Acute Toxicity

(Styrene) death can result.

Aspiration Hazard

Inhalation; skin contact; eye contact; ingestion.

Likely Routes of Exposure

Chemical Name LC50 LD50 (oral) LD50 (dermal)

Styrene 11.8 mg/L (rat) (4-hour
exposure)
5000 mg/kg (rat) > 2000 mg/kg (rat)

was reported but in fact the test was performed with a styrene-containing resin and not with styrene only.

Carcinogenicity

Evaluation of R.S.S.T. : Carcinogenic effect demonstrated in animals. For these substances, the results of
carcinogenicity studies in animals are not necessarily transferable to humans.
Evaluation of C.I.R.C. : The agent (mixture) may be carcinogenic to humans (group 2B).
Evaluation of A.C.G.I.H. : Not classifiable as a carcinogen to humans (Group A4).
Assessment of N.T.P. : The substance is reasonably anticipated to be carcinogenic (R).

Development of Offspring

(Styrene) studies in people show effects on the unborn child.

Reproductive Toxicity

No association between male or female styrene exposure and fertility (the number of menstrual cycles required to
become pregnant) has been observed in three epidemiological studies.

Germ Cell Mutagenicity

Conclusions cannot be drawn from the limited studies available. Not known to be a mutagen.

Interactive Effects

Styrene's interactions with certain chemicals can lead to an increase in its toxic effects. (example: alcohol.).

Sexual Function and Fertility

Effects on or via Lactation

No information was located.

Chemical Name IARC ACGIH® NTP OSHA

Styrene Group 2B
(Styrene) low potential.
(Styrene) No information was located.
An environmental hazard can not be excluded in the event of unprofessional handling or disposal.

SECTION 12. ECOLOGICAL INFORMATION

Do not send into drains, stormwater or groundwater.
(Styrene) Indirect photodegradation by reaction with OH radicals, half-reaction time approx. 7.4 h 71% / 28 d Readily
biodegradable. Do not dissolve in water. Fleet on the surface.

Ecotoxicity

Persistence and Degradability

Mobility in Soil

Other Adverse Effects

Bioaccumulative Potential

Acute Aquatic Toxicity

Chemical Name LC50 Fish EC50 Crustacea ErC50 Aquatic Plants ErC50 Algae

Styrene 4.02 mg/L (Pimephales promelas (fathead minnow); 96-hour)
4.9 mg/L (Pseudokirchneriella subcapitata (algae); 72-hour)

SECTION 13. DISPOSAL CONSIDERATIONS

Waste must be disposed of in accordance with federal, provincial and municipal environmental protection regulations.
This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground
or into any body of water. The container for this product can present explosion or fire hazards, even when emptied. Do
not cut, puncture, or weld on or near this container. Do not reuse empty containers.

Disposal Methods

SECTION 14. TRANSPORT INFORMATION

This section is not required by WHMIS 2015.

UN No. Proper Shipping Name Packing Group
Transport Hazard Regulation Class(es)
Canadian TDG 1866 Résine en solution 3 III
Special Precautions Not applicable
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL or are not required to be listed.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.
Safety, Health and Environmental Regulations
References The sds of the different suppliers. CHEMINFO database. Canadian Center for Occupational
Health and Safety (CCOHS).
Disclaimer Information contained in this SDS is beleived to be accurate but is furnished without warranty,express or implied,including warranties of merchantability or fitness for a particular purpose.The information relates only to the specific material designated herin.The user is responsible for determining whether the product is suitable for user's method of use or application.

SECTION 16. OTHER INFORMATION

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