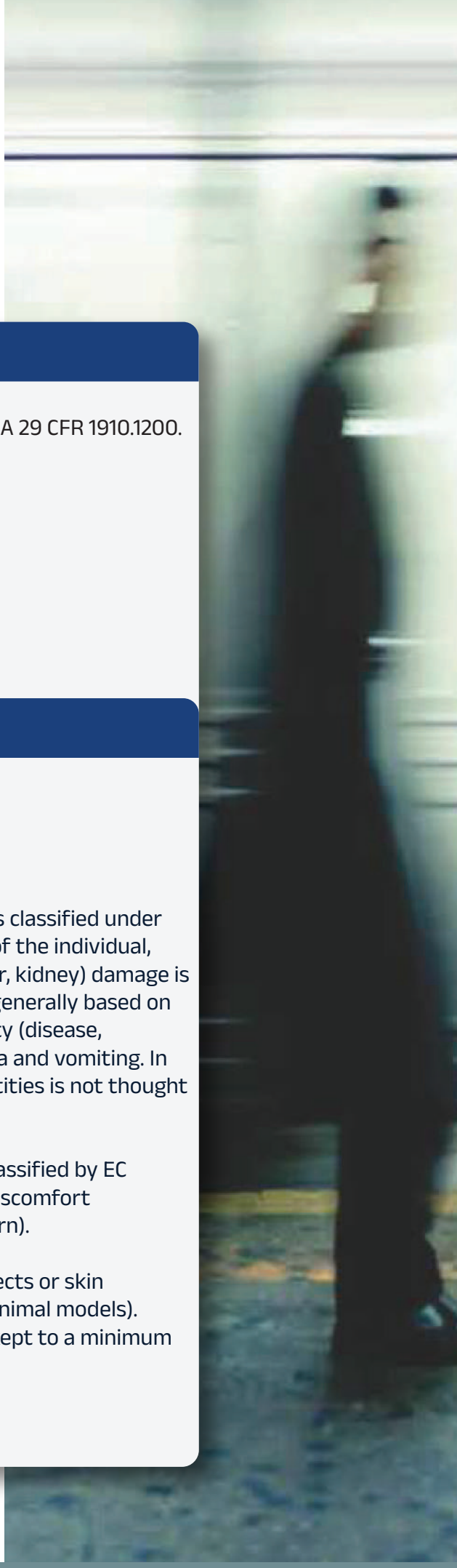
GANPATI EXIM™
Pursuing Excellence

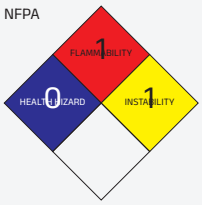
MATERIAL SAFETY DATA SHEET

SOLUTION STYRENE BUTADIENE RUBBER



SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
NOT CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.



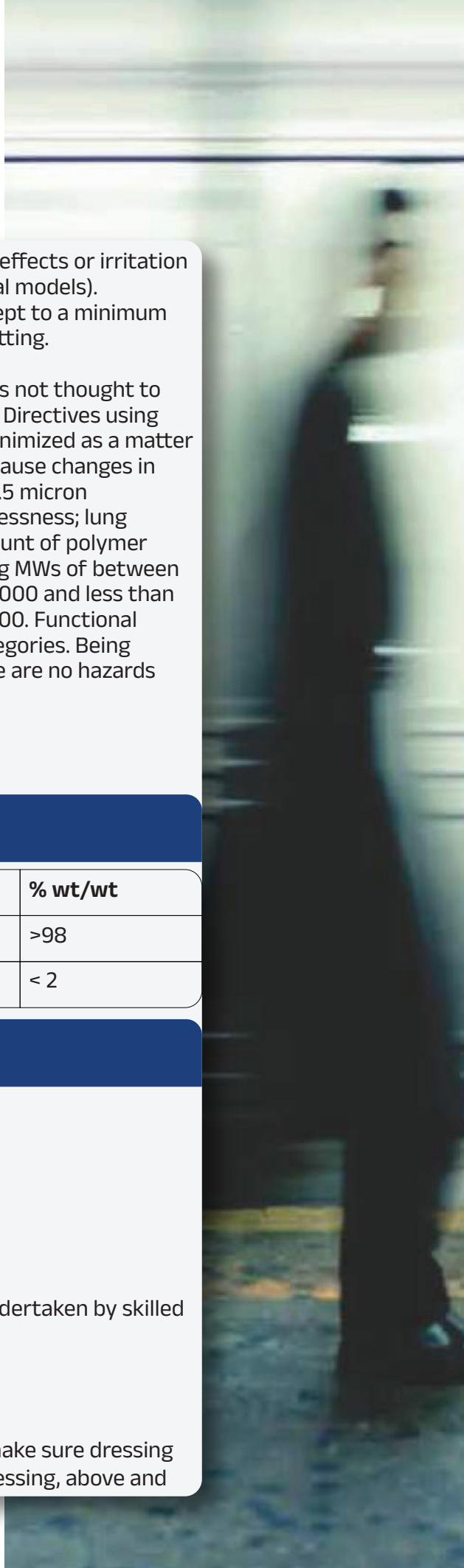
Product uses
Used for tire;

SECTION 2 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
RISK
POTENTIAL HEALTH EFFECTS
ACUTE HEALTH EFFECTS
SWALLOWED
Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

EYE: Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterized by tearing or conjunctiva redness (as with windburn).

SKIN: The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.



INHALED: The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

CHRONIC HEALTH EFFECTS: Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimized as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis; caused by particles less than 0.5 micron penetrating and remaining in the lung. Prime symptom is breathlessness; lung shadows show on X-ray. This material contains a substantial amount of polymer considered to be of low concern. These are classified under having MWs of between 1000 to 10000 with less than 25% of molecules with MWs under 1000 and less than 10% under 500; or having a molecular weight average of over 10000. Functional groups contained on the polymer are then classified into risk categories. Being classified as a polymer of "low concern" does not mean that there are no hazards associated with the chemical.

Classification according to GHS
Not classified.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

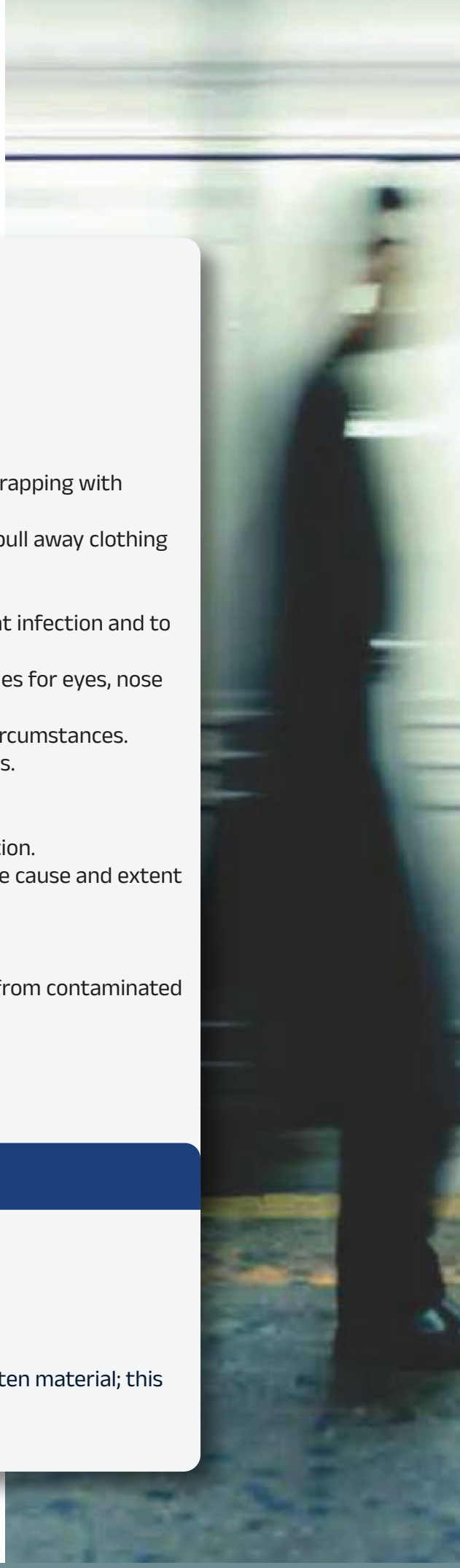
Name	CAS No.	% wt/wt
Styrene-Butadiene Copolymer	9003-55-8	>98
Antioxidants	Proprietary	< 2

SECTION 4 - FIRST AID MEASURES

SWALLOWED
•Contact a Poisons Information Centre or a doctor.

EYE
If this product comes in contact with eyes:
• Wash out immediately with water.
• If irritation continues, seek medical attention.
• Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

For THERMAL burns:
• Do NOT remove contact lens
• Lay victim down, on stretcher if available and pad BOTH eyes, make sure dressing does not press on the injured eye by placing thick pads under dressing, above and



below the eye.
• Seek urgent medical assistance, or transport to hospital.

SKIN
If skin or hair contact occurs:
• Flush skin and hair with running water (and soap if available).
• Seek medical attention in event of irritation.
In case of burns:
• Immediately apply cold water to burn either by immersion or wrapping with saturated clean cloth.
• DO NOT remove or cut away clothing over burnt areas. DO NOT pull away clothing which has adhered to the skin as this can cause further injury.
• DO NOT break blister or remove solidified material.
• Quickly cover wound with dressing or clean cloth to help prevent infection and to ease pain.
• For large burns, sheets, towels or pillow slips are ideal; leave holes for eyes, nose and mouth.
• DO NOT apply ointments, oils, butter, etc. to a burn under any circumstances.
• Water may be given in small quantities if the person is conscious.
• Alcohol is not to be given under any circumstances.
• Reassure.
• Treat for shock by keeping the person warm and in a lying position.
• Seek medical aid and advise medical personnel in advance of the cause and extent of the injury and the estimated time of arrival of the patient.

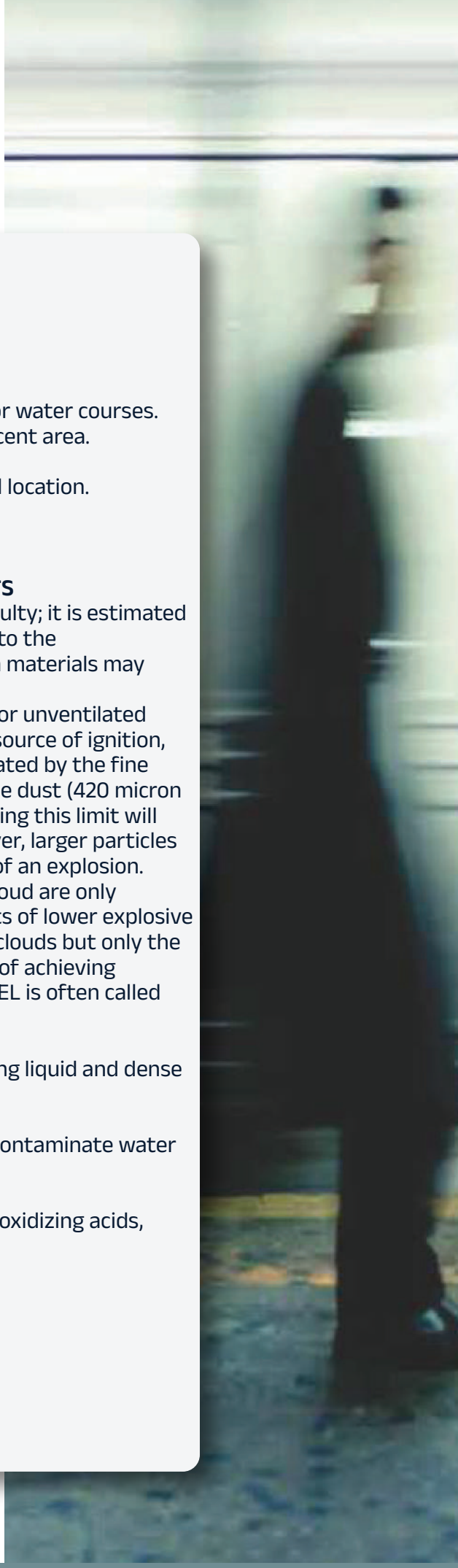
INHALED
• If fumes, aerosols or combustion products are inhaled remove from contaminated area.
• Other measures are usually unnecessary.

NOTES TO PHYSICIAN
Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Vapour Pressure (mmHG): Negligible
Upper Explosive Limit (%): Not available.
Specific Gravity (water=1): 0.94 @ 20C
Lower Explosive Limit (%): 25 g/m³

EXTINGUISHING MEDIA
• Do NOT direct a solid stream of water or foam into burning molten material; this may cause spattering and spread the fire.
• Water spray or fog.
• Alcohol stable foam.



• Dry chemical powder.
• Carbon dioxide.

FIRE FIGHTING
• Alert Fire Brigade and tell them location and nature of hazard.
• Wear breathing apparatus plus protective gloves.
• Prevent, by any means available, spillage from entering drains or water courses.
• Use water delivered as a fine spray to control fire and cool adjacent area.
• DO NOT approach containers suspected to be hot.
• Cool fire exposed containers with water spray from a protected location.
• If safe to do so, remove containers from path of fire.
• Equipment should be thoroughly decontaminated after use.

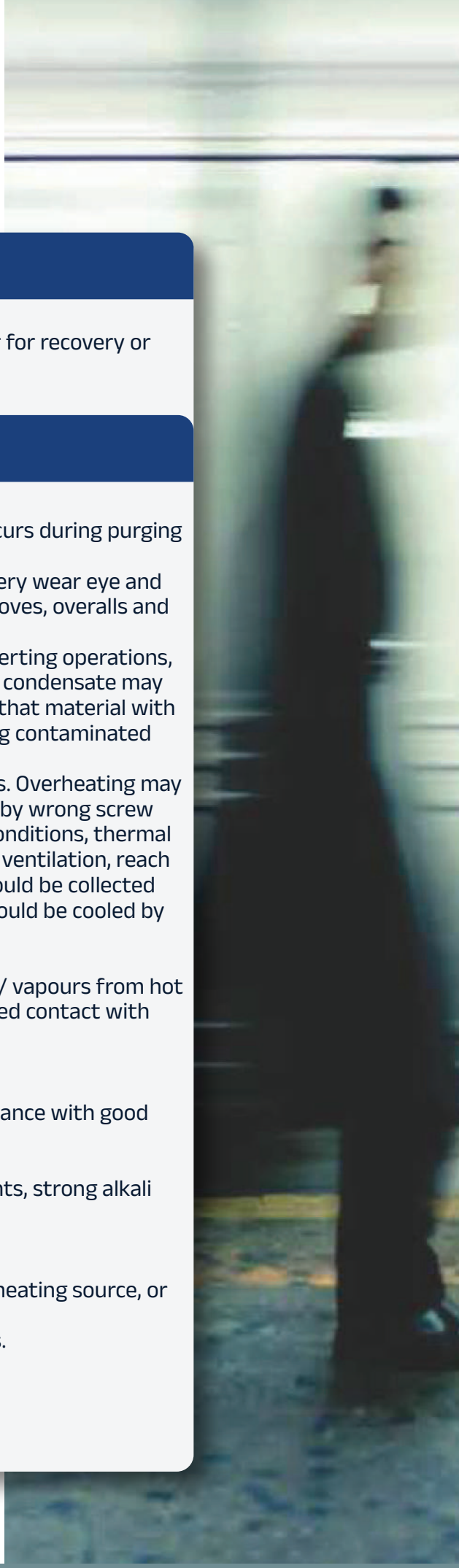
GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS
• Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.
• Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds.; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.
• In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL).are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC)

NOTE: Burns with intense heat. Produces melting, flowing, burning liquid and dense acrid black smoke. May emit irritant fumes.

CARE: Contamination of heated / molten liquid with water may contaminate water

FIRE INCOMPATIBILITY
• Avoid contact contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result.

PERSONAL PROTECTION
Glasses: gloves.:
Chemical goggles. Particulate



SECTION 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

•Use appropriate tools to put the spilled solid in suitable container for recovery or disposal.
•Wear suitable protective equipment.

SECTION 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

• The greatest potential for injury caused by molten materials occurs during purging of machinery (molders, extruders etc.)
• It is essential that workers in the immediate area of the machinery wear eye and skin protection (such as full face, safety glasses, heat resistant gloves, overalls and safety boots) as protection from thermal burns.
• Fumes or vapor emitted from hot melted materials, during converting operations, may condense on overhead metal surfaces or exhaust ducts. The condensate may contain substances which are irritating or toxic. Avoid contact of that material with the skin. Wear rubber or other impermeable gloves when cleaning contaminated areas.
• Avoid process temperatures above decomposition temperatures. Overheating may occur at excessively high cylinder heats, overworking of the melt by wrong screw configuration, or by long dwell time in the machine. Under such conditions, thermal emissions and heat-degradation products might, without proper ventilation, reach hazardous concentrations in the converting area. Hot purging should be collected only as thin flat strands to allow for rapid cooling. Hot purging should be cooled by quenching in water in a well-ventilated area.

Do not eat, drink or smoke when using. Avoid inhalation of fumes/ vapours from hot rubbers, compounds and vulcanizates. Avoid repeated or prolonged contact with skin. Wear gloves and wash hands after.

RECOMMENDED STORAGE METHODS

Avoid ingestion, inhalation, skin and eye contact. Handle in accordance with good industrial hygiene practice and any legal requirements.
Suitable container: Metal box or wooden box.
Storage incompatibility: Avoid reaction with strong oxidizing agents, strong alkali and strong acid.

STORAGE REQUIREMENTS

•Store in room temperature and avoid sunshine, away from fire , heating source, or inflammable materials.
• Observe manufacturer's storing and handling recommendations.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records
• styrene/ butadiene rubber: CAS:9003- 55- 8

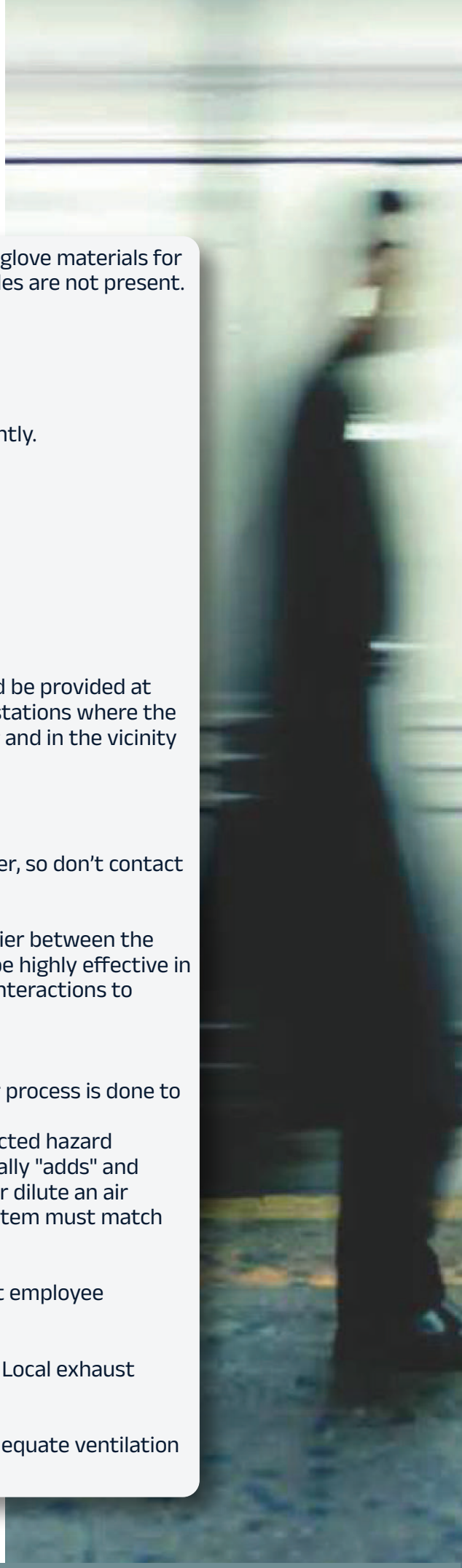
PERSONAL PROTECTION

EYE

• Safety glasses with side shields.
• Chemical goggles.
• Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

HANDS/FEET

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:
• frequency and duration of contact,
• chemical resistance of glove material,
• glove thickness and
• dexterity
Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).
• When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
• When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.
• Contaminated gloves should be replaced.
Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non□perfumed moisturizer is recommended.
• When handling hot materials wear heat resistant, elbow length gloves.
• Rubber gloves are not recommended when handling hot objects, materials.
• Protective gloves e.g. Leather gloves or gloves with Leather facing.



Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.
• polychloroprene
• nitrile rubber
• butyl rubber
• fluorocaoutchouc
• polyvinyl chloride
Gloves should be examined for wear and/ or degradation constantly.

OTHER
• CAUTION: Vapours may be irritating.
• Overalls.
• P.V.C. apron.
• Eye wash unit.

ENGINEERING CONTROLS
For molten materials:
Provide mechanical ventilation; in general such ventilation should be provided at compounding/ converting areas and at fabricating/ filling work stations where the material is heated. Local exhaust ventilation should be used over and in the vicinity of machinery involved in handling the molten material.

Keep dry!!

Processing temperatures may be well above boiling point of water, so don't contact with molten material.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:
Process controls which involve changing the way a job activity or process is done to reduce the risk.
Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances.

Correct fit is essential to ensure adequate protection. Provide adequate ventilation in warehouses and enclosed storage areas.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid
Colour:	Light yellow
Odour:	Almost odourless
Odour threshold:	No data available
pH:	Not applicable
Melting point:	No data available
Solidification point:	No data available
Boiling point:	Not applicable
Flash point:	No data available
Relat. evapor. rate comp. to butylacetate:	No data available
Flammability (solid, gas):	No data available
Explosive limits:	No data available
Vapour pressure:	No data available
Relative vapour density at 20 °C:	No data available
Relative density:	0.93-0.94g.cm³
Solubility:	Insoluble in water
Log Pow:	No data available
Self ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	No data available
Oxidising properties:	No data available

SECTION 10 - CHEMICAL STABILITY

CONDITIONS CONTRIBUTING TO INSTABILITY
Product is considered stable and hazardous polymerisation will not occur.

STORAGE INCOMPATIBILITY
• Avoid reaction with oxidising agents.
For incompatible materials - refer to Section 7 - Handling and Storage.

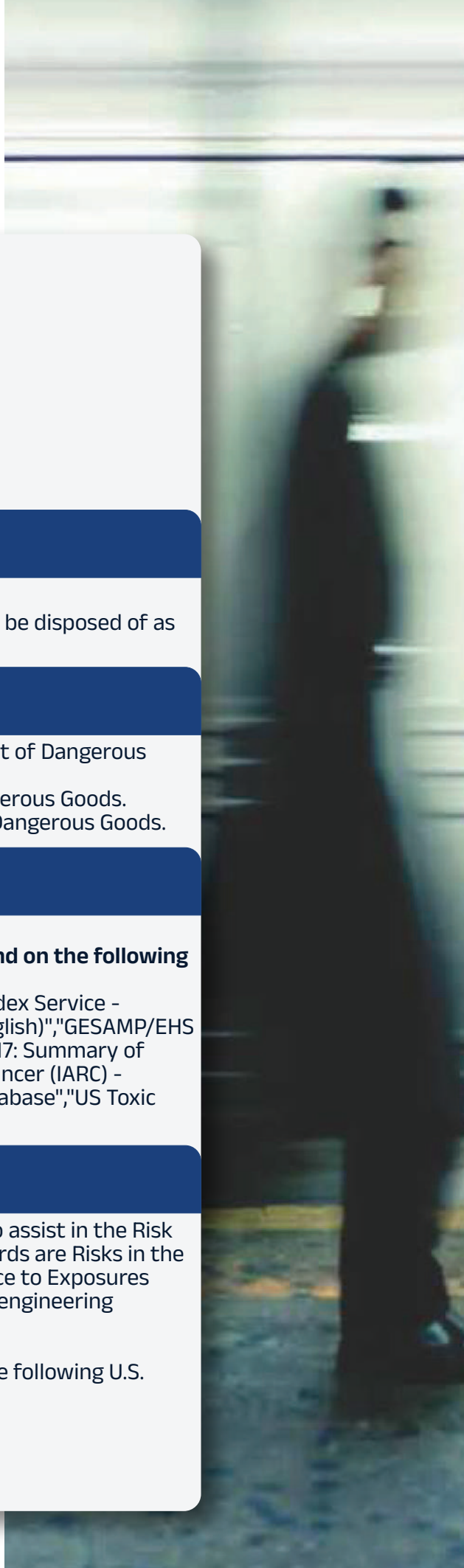
SECTION 11 - TOXICOLOGICAL INFORMATION

According to our experience and information the product has no harmful effects on health if properly handled.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity
No data available.

Persistence and degradability
No data available.



Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Results of PBT and vPvB assessment
Not applicable.

Other adverse effects
No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Product disposal: Observe specific national regulation.
Contaminated packaging: Contaminated, empty containers must be disposed of as chemical waste.

SECTION 14 - TRANSPORTATION INFORMATION

Domestic transport (RID/ADR): Not regulated under UN Transport of Dangerous Goods.
Sea transport (IMDG): Not regulated under UN Transport of Dangerous Goods.
Air transport (ICAO/IATA): Not regulated under UN Transport of Dangerous Goods.

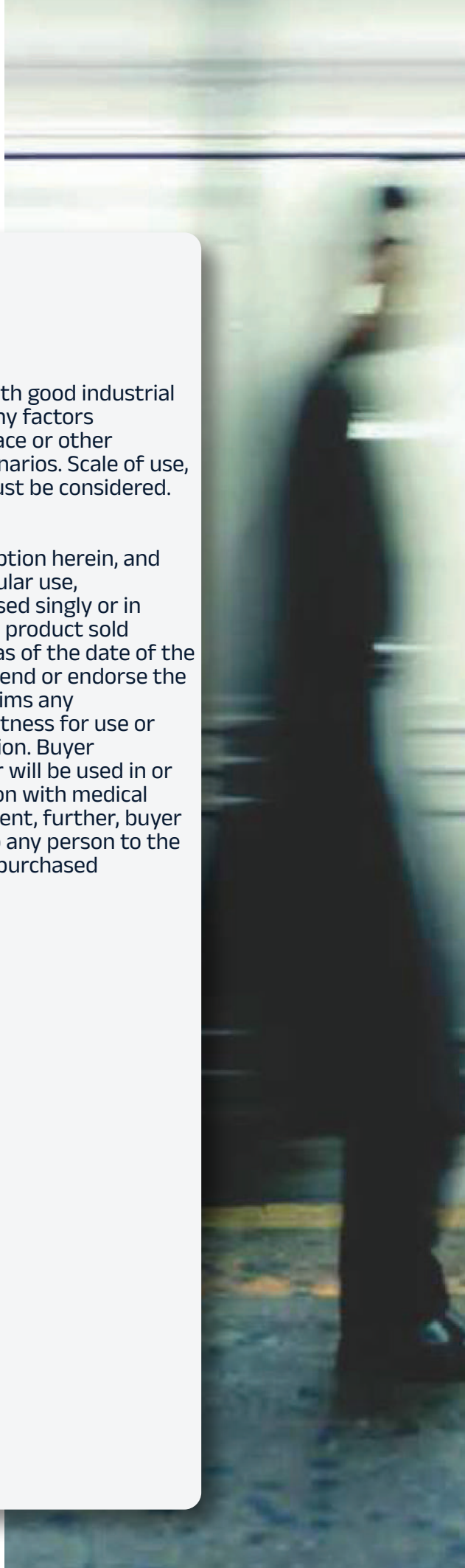
SECTION 15 - REGULATORY INFORMATION

REGULATIONS
styrene/ butadiene rubber (CAS: 61789-96-6,9003-55-8) is found on the following regulatory lists;
"Canada Domestic Substances List (DSL)","Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS (English)","GESAMP/EHS Composite List - GESAMP Hazard Profiles","IMO IBC Code Chapter 17: Summary of minimum requirements","International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs","US Food Additive Database","US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory"

SECTION 16 - OTHER INFORMATION

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following U.S. Regulations and Standards:
OSHA Standards - 29 CFR:
1910.132 - Personal Protective Equipment - General requirements
1910.133 - Eye and face protection
1910.134 - Respiratory Protection



1910.134 - Respiratory Protection
1910.136 - Occupational foot protection
1910.138 - Hand Protection
Eye and face protection - ANSI Z87.1
Foot protection - ANSI Z41
Respirators must be NIOSH approved.
This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Limited warranty
There are no warranties which extend beyond the product description herein, and seller makes no warranty, express or implied, of fitness for particular use, merchantability or otherwise with respect to product, whether used singly or in combination with other substances or in any process, except that product sold hereunder shall conform to seller's standard sales specifications as of the date of the shipment. Without limiting the foregoing, seller does not recommend or endorse the use of product(s) in any medical application and specifically disclaims any representation or warranty , express or implied, of suitability or fitness for use or otherwise, with respect to product(s)' use in any medical application. Buyer represents and warrants that no product(s) purchased hereunder will be used in or resold into any commercial or developmental manner in connection with medical applications without seller's prior express written acknowledgement, further, buyer agrees that it will make no representations, express or implied, to any person to the effect that seller recommends or endorses the use of product(s) purchased hereunder in any medical application.