

1. Product and company identification

Product identifier

Trade name: 84P1 - Acrymed Mono

This safety data sheet pertains to the following products:
84P1 = Acrymed Mono

Recommended use and restrictions on use

General use: Acrylic monomer for orthopedic procedures.
Reserved for industrial and professional use.

Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

Street/POB-No.: 5470 Harvester Road

Postal Code, city: Burlington, ON L7L 5N5, CA
Canada

WWW: www.ottobock.ca

E-mail: info.canada@ottobock.com

Telephone: (800) 665-3327

Telefax: (800) 463-3659

Department responsible for information:

Mark Agro, Telephone: (800) 665-3327 (9 am - 5 pm)

Additional information:

Corporate headquarters:
Ottobock SE & Co. KGaA
Max-Näder-Straße 15
Duderstadt
Germany

Emergency phone number

COLLECT, Telephone: (613) 996-6666

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

2. Hazards identification

Emergency overview

Appearance: Form: liquid
Color: colorless, clear

Odor: ester-like

Classification: Flammable Liquid 2. Skin Irritation 2. Sensitization - skin 1.
Specific Target Organ Toxicity (Single Exposure) 3.

Hazard symbols:



Signal word:

Danger

Hazard statements:

- Highly flammable liquid and vapor.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May cause respiratory irritation.

Precautionary statements:

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep container tightly closed.
- Avoid breathing vapors.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/protective clothing/eye protection/face protection.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- Call a POISON CENTER/doctor/.../if you feel unwell.
- Store in a well-ventilated place. Keep cool.
- Dispose of contents/container to hazardous or special waste collection point.

Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and WHMIS in Canada.

Hazards not otherwise classified

Vapors irritate eyes and respiratory system. Pulmonary edema is possible.
 High concentrations of vapor or inhalation for an extended period may lead to paralysis of the central nervous system.
 Potentially explosive mixtures may form if adequate ventilation is not provided.
 Special danger of slipping by leaking/spilling product.
 see section 11: Toxicological information

3. Composition / Information on ingredients

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 80-62-6	Methyl methacrylate	>= 90 %	Flammable Liquid 2. Skin Irritation 2. Sensitization - skin 1. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 97-90-5	Ethylene dimethacrylate	< 10 %	Sensitization - skin 1. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 3077-12-1	N,N-bis-(2-Hydroxyethyl)-p-toluidine	< 1 %	Acute Toxicity 4 (oral). Skin Irritation 2. Eye Damage 1.

4. First aid measures

General information:

- Do not allow victim to become chilled. Keep victim warm. In case of vomiting, lay at least head on side. If victim is at risk of losing consciousness, position and transport on their side.
- Always seek medical assistance if symptoms develop that are possibly due to exposure through skin or eye contact or through inhalation of fumes.

In case of inhalation:	Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Seek medical attention.
Following skin contact:	Take off immediately all contaminated clothing. Immediately clean with water and soap and, if available, apply a generous amount of polyethylene glycol 400. Seek medical attention if irritation persists.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult physician.
After swallowing:	Rinse mouth thoroughly with water. Immediately get medical attention.

Most important symptoms and effects, both acute and delayed

May cause respiratory irritation. Causes skin irritation.
May cause an allergic skin reaction.
The following symptoms may occur: Mucous membrane irritation, Cough and shortage of breath.
High concentrations of vapor or inhalation for an extended period may lead to paralysis of the central nervous system. Pulmonary edema is possible.
In case of prolonged or frequent exposure eye irritation may occur.

Information to physician

Monitor breathing. Treat symptomatically.
On irritation of the respiratory system use an aerosol dispenser and treat with 5 doses of dexamethasone aerosol (e.g. Auxiloson, Thomae) every 10 minutes until symptoms cease.
Estimated lethal dose: 30g

5. Fire fighting measures

Flash point/flash point range:

10 °C (c.c. DIN 51755)

Auto-ignition temperature: No data available

Suitable extinguishing media:

Extinguishing powder, foam, water spray jet, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

Specific hazards arising from the chemical

Highly flammable liquid and vapor.
Vapors form potentially explosive mixtures with air, which are heavier than air. Air-Vapor mixture may travel great distances at floor level and lead to backflash when exposed to an ignition source.
In case of fire may be liberated: Nitrogen oxides (NO_x), carbon monoxide and carbon dioxide.

Special protective equipment and precautions for fire-fighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Heating will lead to pressure increase: Danger of bursting and explosion.
Cool endangered containers with water spray and, if possible, remove from danger zone.
Do not allow fire water to penetrate into surface or ground water.
In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

6. Accidental release measures

Personal precautions:	<p>Eliminate all ignition sources if safe to do so.</p> <p>Provide adequate ventilation. Do not breathe vapors.</p> <p>Wear appropriate protective equipment. Keep unprotected people away.</p> <p>Avoid contact with skin and eyes.</p>
Environmental precautions:	<p>Do not allow to enter into ground-water, surface water or drains.</p> <p>Danger of explosion!</p> <p>In case of release, notify competent authorities.</p>
Methods for clean-up:	<p>Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal.</p> <p>In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).</p> <p>Use only spark proof tools.</p> <p>Vapors form potentially explosive mixtures with air, which are heavier than air. Air-Vapor mixture may travel great distances at floor level and lead to backflash when exposed to an ignition source.</p>
Additional information:	<p>Take precautionary measures against static discharges.</p> <p>In case of handling larger quantities: Use explosion-proof equipment and non-sparking tools/utensils.</p> <p>Special danger of slipping by leaking/spilling product.</p>

7. Handling and storage

Handling

Advices on safe handling:	<p>Provide good ventilation and/or an exhaust system in the work area.</p> <p>Vapors are heavier than air and will travel at floor level.</p>
Precautions against fire and explosion:	<p>Keep away from sources of ignition - No smoking.</p> <p>Take precautionary measures against static discharges.</p> <p>In case of fire, cool endangered containers with water.</p> <p>Emergency cooling must be provided for in case of a fire in the vicinity. Do not weld.</p>

Storage

Requirements for storerooms and containers:	<p>Because oxygen (air) is necessary to stabilize product, fill container only to 90% of capacity.</p> <p>Keep container tightly closed to prevent evaporation.</p> <p>Storage temperatures not to exceed 30 °C. Keep away from sources of ignition. Protect from light.</p> <p>Provide adequate oxygen (air) circulation for large containers to ensure product stability.</p>
Hints on joint storage:	<p>Do not store together with organic peroxides, ammonia or persulphates.</p> <p>Keep away from food, drink and animal feedingstuffs.</p>

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
80-62-6	Methyl methacrylate	Canada: OEL 15 min	410 mg/m ³ ; 100 ppm
		Canada: OEL 8 hour	205 mg/m ³ ; 50 ppm
		Canada: OEL STEL	100 ppm
		Canada: OEL TWA	50 ppm
		Canada: VECD	100 ppm
		Canada: VEMP	50 ppm
		USA: ACGIH: STEL	410 mg/m ³ ; 100 ppm
		USA: ACGIH: TWA	205 mg/m ³ ; 50 ppm
		USA: IDLH: TWA	1,000 ppm
		USA: NIOSH: TWA	410 mg/m ³ ; 100 ppm
		USA: OSHA: TWA	410 mg/m ³ ; 100 ppm

Engineering controls

Use only closed, grounded equipment with this product.

Extract vapors by suction at point of emission.

Do not allow containers to stand open.

See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Suitable protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

Glove material: Butyl caoutchouc (butyl rubber)-Layer thickness: 0,7 mm

Breakthrough time: 480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. Use filter type A (= against vapors of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

General hygiene considerations:

Do not breathe vapors.

Avoid contact with skin and eyes.

Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

Eye wash facility must be provided.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:

Form: liquid

Color: colorless, clear

Odor:	ester-like
Odor threshold:	No data available
pH:	No data available
Melting point/freezing point:	-48 °C
Initial boiling point and boiling range:	100.3 °C
Flash point/flash point range:	10 °C (c.c. DIN 51755)
Evaporation rate:	No data available
Flammability:	Highly flammable liquid and vapor.
Explosion limits:	LEL (Lower Explosion Limit): 2.10 Vol-% UEL (Upper Explosive Limit): 12.50 Vol-%
Vapor pressure:	at 20 °C: 40 hPa
Vapor density:	No data available
Density:	at 20 °C: 0.94 g/mL
Solubility:	at 20 °C: soluble in various organic solvents
Water solubility:	at 20 °C: 15.9 g/L
Partition coefficient: n-octanol/water:	0.7 log P(o/w) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Viscosity, dynamic:	at 20 °C: 0.6 mPa*s (Brookfield)
Explosive properties:	Not explosive. Vapors may form explosive mixtures with air.
Ignition temperature:	430 °C (DIN 51794)

10. Stability and reactivity

Reactivity:	Highly flammable liquid and vapor. Liquid evaporates quickly.
Chemical stability:	Product is stable under normal temperatures and pressures. Stable under recommended storage conditions.
Possibility of hazardous reactions:	Vapors form potentially explosive mixtures with air, which are heavier than air. Air-Vapor mixture may travel great distances at floor level and lead to backflash when exposed to an ignition source. Ignition by hot surfaces, sparks and open flames. Container may explode if polymerization occurs.
Conditions to avoid:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Incompatible materials:	Contact with the following materials leads to a violent catalytic auto-reaction of the product: Organic peroxides (such as benzoyl-, acetyl-, lauroyl- and tertbutylhydro-peroxide), as well as combination such as azorbis-iso-butyronitril, anionic liquid of sodium, ammonia and persulfate. Due to reducing substances, peroxides and heavy metal ions, polymerization with heat generation may occur.

Hazardous decomposition products:

In case of fire may be liberated: Nitrogen oxides (NO_x), carbon monoxide and carbon dioxide.

Thermal decomposition:

No data available

11. Toxicological information

Toxicological tests

Acute toxicity:

LD50 Rat, oral: 7,872 mg/kg
LC50 Rat, inhalative: 7,093 ppm/4h
LD50 Rabbit, dermal: > 5,000 mg/kg

Toxicological effects:

Acute toxicity (oral): Lack of data.
Acute toxicity (dermal): Lack of data.
Acute toxicity (inhalative): Lack of data.
Skin corrosion/irritation: Skin Irritation 2 = Causes skin irritation.
Serious eye damage/irritation: Lack of data.
Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Sensitization - skin 1 = May cause an allergic skin reaction.
Germ cell mutagenicity/Genotoxicity: Lack of data.
Carcinogenicity: Lack of data.
Reproductive toxicity: Lack of data.
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) 3 = May cause respiratory irritation.
Specific target organ toxicity (repeated exposure): Lack of data.
Aspiration hazard: Lack of data.

Other information:

Following information applies to the component Methyl methacrylate:

LD50 Rat, oral: >5000 mg/kg

LC50 Rat, inhalative: 29,8 mg/l/4h

LD50 Rabbit, dermal: >5000 mg/kg

Skin irritation, Rabbit, 24h: Not an irritant (FDA, Draize).

Irritant effect on the eye: Rabbit: Not an irritant (Draize)

sensitization:

Sensitivity testing among guinea pigs with and without adjuvants afforded both positive and negative results.

May cause sensitization by skin contact. Varying incidences of allergic reactions have been observed in humans. (Symptoms: Headache, eye irritations, skin problems)

Mutagenicity:

not a mutagen (Dose 10000 µg/plate (Salmonella typhimurium, Ames-Test)

Mouse, Lymphoma L 5178 Y TK+/-Cells: mutagenic

CHO-Cells: Slight increase of the SCE (SCE-test)

No increase of the number of micronucleides under the following test conditions: OECD 474:

4520 mg/kg/Dose 1

1130 mg/kg/Dose 4

CD-1 Mouse, male, 6h/d, 5d: not a mutagen (Dominant letal Test)

Product did not show any carcinogenous, mutagenous or teratogenic effects in animal experiments. (Teratogenicity: Rat, inhalative: 2028 ppm, 6 - 15 d)

Chronic toxicity:

Rat, inhalative 250 - 1000 ppm (6h/d, 5d/w) exceeding 2a). Symptoms: Damage of the mucous membranes in nose, throat and lungs. Degeneration of olfactory epithelia.

Mouse, inhalative 500 - 1000 ppm (6h/d, 5d/w) exceeding 2a). Symptoms: Damage of the mucous membranes in nose, throat and lungs. Degeneration of olfactory epithelia.

Following information applies to the component ethyl triglycol methacrylate:

LD50 Rat, oral: >5000 mg/kg Stable under recommended storage conditions.

Symptoms

In case of inhalation: Cough and shortage of breath.

In case of ingestion:

Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

After resorption of toxic quantities: CNS disorders, drowsiness, amyosthenia, coma, liver and kidney damage.

After eye contact: Irritation and redness may occur.

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Following information applies to the component Methyl methacrylate:

Algae toxicity:

EC3 Scenedesmus quadricauda: 37mg/L, 8d (DIN 38412 T.9)

Bacterial toxicity:

EC0 Pseudomonas putida: 100 mg/L

Daphnia toxicity:

EC50 Daphnia magna: 69mg/L, 48h (OECD 202/ISO 6341/EEC 84/449/V, C2)

Fish toxicity:

LC50 Oncorhynchus mykiss: >79 mg/L/96h (OECD 203/ISO 7346/EEC 84/449/V, C1)

NOEC Oncorhynchus mykiss: >40 mg/L/96h (OECD 203/ISO 7346/EEC 84/449/V, C1)

Mobility in soil

No data available

Persistence and degradability

Further details: Following information applies to the component Methyl methacrylate:
Product is readily biodegradable. (OECD 301 C, 14d: 94%)
Abiotic degradation:
Hydrolysis (25 °C, pH 7): half-life time (DT50): 53 months.
Hydrolysis (25 °C, pH 11): half-life time (DT50): 2.4 h.
Air (Photo-oxidation, OH-) half-life time (DT50): 6.99 h.

Additional ecological information

Volatile organic compounds (VOC):

100 % by weight

General information: Do not allow to penetrate into soil, waterbodies or drains.

13. Disposal considerations

Product

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

Package

Recommendation: Waste key number:
150102 Plastic container
150104 Packages of metal
Dispose of waste according to applicable legislation.
Handle contaminated packages in the same way as the substance itself.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:

UN 1247

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 1247, METHYL METHACRYLATE MONOMER, STABILIZED

Transport hazard class(es)

ADR/RID: Class 3, Code: F1

IMDG: Class 3, Subrisk -

IATA-DGR: Class 3

Packing group

ADR/RID, IMDG, IATA-DGR:

II

Environmental hazards

Marine pollutant: no



Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

USA: Department of Transportation (DOT)

Identification number: UN1247
 Proper shipping name: UN 1247,
 METHYL METHACRYLATE MONOMER, STABILIZED
 Hazard class or Division: 3
 Packing Group: II
 Labels: 3
 Special Provisions: 387, IB2, T4, TP1
 Packaging – Exceptions: 150
 Packaging – Non-bulk: 202
 Packaging – Bulk: 242
 Quantity limitations – Passenger aircraft / rail:
 5 L
 Quantity limitations – Cargo only: 60 L
 Vessel stowage – Location: C
 Vessel stowage – Other: 25, 40



Canada: Transportation of Dangerous Goods (TDG)

UN Number: UN1247
 Shipping name: UN 1247, METHYL METHACRYLATE MONOMER, STABILIZED
 TDG class: 3
 Packing group: II
 Special provisions: 155
 Explosive limit and limited quantity index: 1L
 Passenger carrying road or rail index: 5L

Sea transport (IMDG)

UN number: UN 1247
 Proper shipping name: UN 1247, METHYL METHACRYLATE MONOMER, STABILIZED
 Class or division, Subsidiary risk: Class 3, Subrisk -
 Packing Group: II
 EmS: F-E, S-D
 Special Provisions: 386
 Limited quantities: 1 L
 Excepted quantities: E2
 Package - Instructions: P001
 Package - Provisions: -
 IBC - Instructions: IBC02
 IBC - Provisions: -
 Tank instructions - IMO: -
 Tank instructions - UN: T4
 Tank instructions - Provisions: TP1
 Stowage and handling: Category C. SW1 SW2
 Properties and observations: Colourless, volatile liquid. Flashpoint: 8°C c.c. Explosive limits: 1.5% to 11.6%. Immiscible with water, Irritating to skin, eyes and mucous membranes.
 Marine pollutant: no
 Segregation group: none

Air transport (IATA)

UN/ID number:	UN 1247
Proper shipping name::	UN 1247, METHYL METHACRYLATE MONOMER, STABILIZED
Class or division, Subsidiary risk:	Class 3
Packing Group:	II
Hazard label:	Flamm. liquid
Excepted Quantity Code:	E2
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft:	Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only:	Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L
Special Provisions:	A209
Emergency Response Guide-Code (ERG):	3L

15. Regulatory information

National regulations - Canada

Methyl methacrylate:	DSL: listed
Ethylene dimethacrylate:	DSL: listed
N,N-bis-(2-Hydroxyethyl)-p-toluidine:	DSL: listed

National regulations - U.S. Federal Regulations

Methyl methacrylate:	TSCA Inventory: listed
	Carcinogen Status:
	IARC Rating: Group 3
	OSHA Carcinogen: not listed
	NTP Rating: not listed
	Clean Air Act:
	CAA Hazardous Air Pollutants: yes
	CAA SOCM Chemical: yes
	Clean Water Act:
	CWA Hazardous Substances: RQ 1000 lbs.
	Other Environmental Laws:
	CERCLA: RQ 1000 lbs.
	RCRA Hazardous Wastes: Code U162
	RCRA Groundwater Monitoring: Methods 8015, 8240 / PQL 2, 5
	SARA Title III - Section 313, Toxic Release: Conc. 1.0% / Threshold Standard
	NIOSH Recommendations:
	Occupational Health Guideline: 0426
Ethylene dimethacrylate:	TSCA Inventory: listed
N,N-bis-(2-Hydroxyethyl)-p-toluidine:	TSCA Inventory: listed

National regulations - U.S. State Regulations

Methyl methacrylate:

Delaware Air Quality Management List:
DRQ: 1000 - RQ State: Federal Regulations Apply

Idaho Air Pollutant List:
Title 585; AAC: 20,5 - EL: 27,3 - OEL: 410 - Title 586: -

Massachusetts Haz. Substance Codes: 2,4,5,6 F8 F9
Main: HAP - 2000

Minnesota Haz. Substance:
Codes: AO - Ratings: 3.79 - Status: Air Pollutant. Title III. TRI.

New Jersey RTK Hazardous Substance:
DOT: 1247 - Sub No.: 1277

New York List of Hazardous Substances:
RQ-Air: 1000 - RQ-Land: 1
No Note Associated with this chemical

Pennsylvania Haz. Substance Code: E

Washington Air Contaminant: TWA: 100 ppm = 410 mg

16. Other information

Text for labeling:

Contains >= 90 % Methyl methacrylate, < 10 % Ethylene dimethacrylate, < 1 % N,N-bis-(2-Hydroxyethyl)-p-toluidine.

Contains Methyl methacrylate and Ethylene dimethacrylate.

Hazard rating systems:



NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 3 (Serious)

Reactivity: 1 (Slight)

HMIS Version III Rating:

Health: 2 (Moderate)

Flammability: 3 (Serious)

Physical Hazard: 1 (Slight)

Personal Protection: X = Consult your supervisor

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	1
	X

Abbreviations and acronyms:

Acute Toxicity: Acute toxicity
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 AS/NZS: Australian Standards/New Zealand Standards
 CAS: Chemical Abstracts Service
 CFR: Code of Federal Regulations
 CLP: Classification, Labelling and Packaging
 CNS: Central Nervous System
 DMEL: Derived minimal effect level
 DNEL: Derived no-effect level
 EC: European Community
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
 EN: European Standard
 EQ: Excepted quantities
 Eye Damage: Eye damage
 Flammable Liquid: Flammable liquid
 IATA: International Air Transport Association
 IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IMDG Code: International Maritime Dangerous Goods Code
 IMO: International Maritime Organization
 LC50: Median lethal concentration
 LD50: Lethal dose 50%
 LEL: Lower Explosion Limit
 log P(o/w): Partition coefficient: octanol/water
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
 OEL: Occupational Exposure Limit Value
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, bioaccumulative and toxic
 PNEC: Predicted no-effect concentration
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
 Sensitization - skin: Skin sensitisation
 Skin Irritation: Skin irritation
 STOT SE: Specific target organ toxicity - single exposure
 TLV: Threshold Limit Value
 TRGS: Technical Rules for Hazardous Substances
 UN: United Nations
 vPvB: Very persistent and very bioaccumulative
 WEL: Workplace Exposure Limit
 WHMIS: Workplace Hazardous Materials Information System

Reason of change: **Changes in section 8: Occupational exposure limit values**

Date of first version: **6/5/1999**

Department issuing data sheet

Contact person: **see section 1: Department responsible for information**

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.