1. Identification

1.1. Product identifier

Trade name: MYPY

1.2. Recommended use of the chemical and restrictions on use

Relevant applications identified: polymerization initiator

1.3. Details of the supplier of the safety data sheet

Company: United Initiators, Inc.
555 Garden Street
Elyria, OH 44035
USA

Telephone: 440-323-3112
Telefax: 440-323-2659
Email address: Cs-initiators.nafta@united-in.com

1.4. 24 HOUR EMERGENCY TELEPHONE NUMBERS:

CHEMTREC - US & CANADA: 800-424-9300

CHEMTREC INTERNATIONAL: +1 703-527-3887 (collect calls accepted)

Product Regulatory Services: 800-231-2702

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation 29CFR 1910.1200

Organic peroxides: Type D
Skin Sensitisation: Category 1

H242
H317

2.2. Label elements

Statutory basis: Classification according to Regulation 29CFR 1910.1200
2.3. Other hazards
None known.

3. Composition/information on ingredients

- Dimyristyl peroxydicarbonate 95% - 99%

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>53220-22-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic peroxides</td>
<td>Type D</td>
</tr>
<tr>
<td>Skin Sensitisation</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Other information
This material is classified as hazardous under OSHA regulations.

4. First aid measures

4.1. Description of first aid measures

General advice
Take off contaminated clothing immediately.
Never give anything by mouth to an unconscious person.
Remove from exposure, lie down.
If feeling unwell seek medical advice.

Inhalation
If inhaled remove to fresh air. If cough or other symptoms develops or persists get medical attention.

Skin contact
Wash off with soap and water.
Get medical attention if irritation develops and persists.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
### Ingestion
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Seek medical advice immediately.
Should vomiting occur, be sure to keep victim’s head below hips to avoid aspiration of vomitus into the lungs.
Never give anything by mouth to an unconscious person.

### 4.2. Most important symptoms and effects, both acute and delayed

#### Symptoms
None known

#### 4.3. Indication of any immediate medical attention and special treatment needed
None known

---

### 5. Fire-fighting measures

#### 5.1. Extinguishing media
- **Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **Unsuitable extinguishing media:** High volume water jet.

#### 5.2. Special hazards arising from the substance or mixture
- Contact with incompatible materials or exposure to temperatures exceeding the SADT may result in a self acceleration decomposition reaction with release of flammable vapors which may autoignite.
- Cool closed containers exposed to fire with water spray.
- Vapors can travel to a source of ignition and flash back.
- Do not allow run-off from fire fighting to enter drains or water courses.

#### 5.3. Advice for firefighters
- Evacuate area and fight fire from a safe distance.
- Containers near the source of fire should be cooled with a water spray to prevent contents from reaching decomposition temperature.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear.

---

### 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures
- Evacuate personnel to safe areas. Wear a self-contained breathing apparatus and appropriate personal protective equipment. (See Section 8 - Exposure Controls/Personal Protection.)

#### 6.2. Environmental precautions
- Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, rivers, groundwater or soil.

#### 6.3. Methods and material for containment and cleaning up
- Organic Peroxide spills should be attended to immediately. Remove all sources of ignition. Avoid dispersion of dust. Contain spill. Mix with an inert material and then wet the mixture down with water.
- Sweep up mixture of spilled organic peroxide and inert absorbent material using non-sparking tools and place in polyethylene bags for disposal. **NOTE:** A supply of suitable inert absorbent should be kept available in areas where organic peroxides are used. The sweepings in the polyethylene bag should be further wetted with water and disposed of immediately by an approved disposal company. KEEP WASTE REFRIGERATED - THERMALLY UNSTABLE. After all the material has been picked up, wash down the spill area with surfactant and water to remove any traces of organic peroxide.
Additional advice
Never return spills in original containers for re-use.
Dispose of contaminated material as waste in accordance with section 13.

7. Handling and storage

7.1. Precautions for safe handling
REFRIGERATION REQUIRED Avoid dust formation. Avoid breathing dust. Use only with adequate ventilation. Keep away from heat. Keep away from sparks and other sources of ignition. The need for grounding and bonding of containers in accordance with OSHA 29 CFR 1910.106 and NFPA 77 should be assessed for all product transfers. Do not swallow product. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Wash thoroughly after handling. Protect from contamination (see Section 10 for materials to avoid). Dispense and transfer in an area separate from storage area. Never return unused material to storage receptacle. Wash contact areas after handling. Remove contaminated clothing and wash before reuse. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. The addition of accelerators may result in vigorous decomposition.

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion
Avoid the formation of air-dust mixtures and keep sources of ignition (like sparks, flames, open fire) away in order to rule out dust explosions.
Containers exposed to temperatures exceeding the SADT (see section 10) may decompose violently. Consult with specialists to ensure design protects against these hazards.

Storage
REFRIGERATION REQUIRED
Heat or contamination may cause hazardous decomposition.
Keep containers dry and tightly closed to avoid moisture absorption and contamination.
Keep container away from flammable and explosive substances.
Protect from heat and exposure to direct sunlight
Store in original container.
Residual vapors might explode on ignition; do not apply heat, cut, drill, grind or weld on or near this container.
Consult NFPA 400 for storage area guidance. Storage and handling designs should be arranged in consultation with a person experienced in these types of assessments.

Further information
STORE BELOW 20 °C (68 °F).
Do not return residues to original container.
Store apart from other dangerous and incompatible substances.

Advice on common storage
Do not store together with:
acids, alkalis, reducing agents, metallic salts.

Storage stability
< 20 °C

8. Exposure controls/personal protection

8.1. Control parameters

Other information
Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Engineering measures
Use process enclosures, local exhaust ventilation or other engineering controls to control airborne exposure. Avoid accumulation of dust in ventilation ducts or on plant surfaces. Clean areas as needed.

Personal protective equipment
Respiratory protection
A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Hand protection
Use impermeable gloves. Personal protective equipment that provides a barrier to prevent dermal exposure to this substance is required. Gloves must be inspected prior to use. The above mentioned hand protection is based on knowledge of the chemistry and anticipated uses of this product but it may not be appropriate for all workplaces. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes prior to use. Suitability for specific workplaces should be clarified with protective glove manufacturers.

Glove material butyl rubber
Material thickness 0.5 mm
Break through time > 8 hrs

Eye protection
In case of dusts: Wear tight-fitting eye protection (e.g. safety goggles)

Skin and body protection
A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

Hygiene measures
Remove and wash contaminated clothing before re-use. Wash contact areas after handling. Keep away from food, drink and animal feedingstuffs. All protective equipment that has been contaminated should be cleaned before reuse.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties
physical state solid
Colour white
Form solid
Odour characteristic

Odour Threshold not applicable
pH not applicable
Melting point/range ca. 45 °C Decomposes before melting.

Boiling point/range decomposition
Flash point not applicable
Evaporation rate: not applicable

Flammability (solid, gas): not applicable

Lower explosion limit: not applicable

Upper explosion limit: not applicable

Vapour pressure: not applicable

Relative vapour density: no data available

Relative density: 1.02 (20 °C)

Water solubility: insoluble

Partition coefficient: n-octanol/water: not applicable

Autoignition temperature: not applicable

Thermal decomposition: ca. 35 °C

Method: SADT (UN test H.4)

Rapid, exothermic reaction may occur above the Self Accelerated Decomposition Temperature (SADT).

SADT-Self Accelerating Decomposition Temperature. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may autoignite.

Viscosity, dynamic: not applicable

Viscosity, kinematic: not applicable

9.2. Other information
peroxides

The substance or mixture is an organic peroxide classified as type D.

Bulk density: ca. 0.5 kg/m³ (20 °C)

10. Stability and reactivity

10.1. Reactivity
Stable under recommended storage conditions.

10.2. Chemical stability
Contact with incompatible substances can cause disintegration at or below SADT.

10.3. Possibility of hazardous reactions

Stability
Product will not undergo hazardous polymerization.

When coming in contact with the product, impurities, decomposition catalysts, metallic salts, alkalis, reducing agents may lead to self-accelerated, exothermic decomposition and the formation of oxygen compounds.

Risk of decomposition when exposed to heat.
10.4. **Conditions to avoid**
Keep away from heat and sources of ignition.

10.5. **Incompatible materials**
Heavy metal compounds, reducing agents, Combustible material, Strong acids and strong bases, Oxidizing agents, impurities, metal ions, metallic salts, metals.

10.6. **Hazardous decomposition products**
Temperatures at or above the SADT can result in the release of hazardous decomposition products which are flammable and can autoignite.

In case of fire and decomposition formation of inflammable and explosive, irritant, corrosive, harmful and toxic gases and vapors possible.

Contact with incompatible materials or exposure to temperatures exceeding the SADT may result in a self acceleration decomposition reaction with release of flammable vapors which may autoignite.

11. **Toxicological information**

11.1. **Information on toxicological effects**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>LD50 Rat: &gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>no data available</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>No skin irritation</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>No eye irritation</td>
</tr>
<tr>
<td>Sensitization</td>
<td>May cause sensitisation by skin contact.</td>
</tr>
<tr>
<td>Carcinogenicity assessment</td>
<td>Contains no carcinogenic substances as defined by NTP, IARC and/or OSHA.</td>
</tr>
<tr>
<td>Toxicity to reproduction</td>
<td>no data available</td>
</tr>
</tbody>
</table>

12. **Ecological information**

12.1. **Toxicity**

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish</td>
<td>LC50 Poecilia reticulata (guppy): &gt; 1000 mg/l / 96 h Method: OECD TG 203</td>
</tr>
<tr>
<td>Toxicity in aquatic invertebrates</td>
<td>EC50 Daphnia magna (Water flea): &gt; 100 mg/l / 48 h Method: OECD TG 202</td>
</tr>
<tr>
<td>Toxicity to algae</td>
<td>NOEC Pseudokirchnerella subcapitata (green algae): 100 mg/l / 72 h Method: OECD TG 201</td>
</tr>
<tr>
<td>Toxicity to bacteria</td>
<td>EC50 : &gt; 1000 mg/l / 0.5 h Method: OECD TG 209</td>
</tr>
</tbody>
</table>
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12.2. Persistence and degradability

Biodegradability
Exposure time: 28 d
Result: 65 % rapidly biodegradable
Method: OECD 301 D

12.3. Bioaccumulative potential

Bioaccumulation
Bioaccumulation is not to be expected.

12.4. Mobility in soil

Mobility
no data available.

12.5. Other adverse effects

Further Information
There is no data available for this product.
This product is stable in water, and can be mechanically separated from water.

13. Disposal considerations

13.1. Waste treatment methods

Product
Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method of disposal. Contact United Initiators at 1-440-323-3112 for additional information. Empty containers must be handled with care due to product residue. DO NOT HEAT OR CUT THE EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH.

Product
RCRA Classification Ignitable D001.
RCRA Classification Reactive D003.
Uncleaned packaging
Packaging material should be recycled or disposed of in accordance with federal, state and local regulations.

14. Transport information

D.O.T. Road/Rail
14.1. UN number: UN 3116
14.2. UN proper shipping name: Organic peroxide type D, solid, temperature controlled(Dimyristyl peroxydcarbonate,<=100%)
14.3. Transport hazard class(es): 5.2
14.4. Packing group: II
14.5. Environmental hazards (Marine pollutant): --

Yes
Temperature-controlled transport.
Control temperature: 20 °C
Emergency temperature: 25 °C

Air transport ICAO-TI/IATA-DGR
14.1. UN number: UN 3116
14.2. UN proper shipping name: Organic peroxide type D, solid, temperature controlled
14.3. Transport hazard class(es): 5.2
14.4. Packing group: --
14.5. Environmental hazards: --
14.6. Special precautions for user:
- IATA-C: Transport prohibited.
- IATA-P: Transport prohibited.
- Temperature-controlled transport.

Sea transport IMDG-Code/GGVSee (Germany)
14.1. UN number: UN 3116
14.2. UN proper shipping name: ORGANIC PEROXIDE TYPE D, SOLID, TEMPERATURE CONTROLLED(Dimyristyl peroxydicarbonate,<=100%)
14.3. Transport hazard class(es): 5.2
14.4. Packing group: --
14.5. Environmental hazards (Marine pollutant): --
14.6. Special precautions for user:
- EmS: F-F,S-R
- "Separated from" acids and alkalis.
- Protected from sources of heat.
- Temperature-controlled transport.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
for transport approval see regulatory information

15. Regulatory information

US Federal Regulations

OSHA
If listed below, chemical specific standards apply to the product or components:
- None listed

Clean Air Act Section (112)
If listed below, components present at or above the de minimus level are hazardous air pollutants:
- None listed

CERCLA Reportable Quantities
If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:
- None listed
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SAFETY

SAFETY DATA SHEET

MYPC

Material no. 150960
Specification
Order Number

Version 1.0 / US
Revision date 01/23/2015
Print Date 02/03/2015
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US-GHS(P27/001) / 03.02.2015 14:19

SARA Title III Section 311/312 Hazard Categories
The product meets the criteria only for the listed hazard classes:

- Acute Health Hazard
- Reactivity Hazard

SARA Title III Section 313 Reportable Substances
If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

Toxic Substances Control Act (TSCA)
If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed

State Regulations

California Proposition 65
A warning under the California Drinking Water Act is required only if listed below:

- None listed

International Chemical Inventory Status
Unless otherwise noted, this product is in compliance with the inventory listing of the countries shown below. For information on listing for countries not shown, contact the Product Regulatory Services Department.

- Europe (EINECS/ELINCS) listed/registered
- USA (TSCA) listed/registered
- Canada (DSL) listed/registered
- Australia (AICS) listed/registered
- Japan (MITI) not listed/registered
- Philippines (PICCS) listed/registered
- China not listed/registered
- Korea not listed/registered
- New Zealand not listed/registered

An employer using HMIS/NFPA labeling must through training ensure that its employees are fully aware of the hazards of the chemicals used.

HMIS Ratings

Health : 2
Flammability : 2
SAFETY DATA SHEET

MyPC

Material no. Specification 150960
Order Number

Version 1.0 / US
Revision date 01/23/2015
Print Date 02/03/2015
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Physical Hazard: 2

NFPA Ratings

Health: 2
Flammability: 2
Reactivity: 2

16. Other information

Further information

Revision date 01/23/2015

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The 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.
<table>
<thead>
<tr>
<th>Legend</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>American Chemistry Council</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>ACS</td>
<td>Advisory Committee on Sustainability</td>
</tr>
<tr>
<td>ADI</td>
<td>Acceptable Daily Intake</td>
</tr>
<tr>
<td>ASTM</td>
<td>American Society for Testing and Materials</td>
</tr>
<tr>
<td>ATP</td>
<td>Adaptation to Technical Progress</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>BOD</td>
<td>Biochemical oxygen demand</td>
</tr>
<tr>
<td>c.c.</td>
<td>closed cup</td>
</tr>
<tr>
<td>CAO</td>
<td>Cargo Aircraft Only</td>
</tr>
<tr>
<td>Carc</td>
<td>Carcinogen</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Services</td>
</tr>
<tr>
<td>CDN</td>
<td>Canada</td>
</tr>
<tr>
<td>CEPA</td>
<td>Canadian Environmental Protection Act</td>
</tr>
<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response – Compensation and Liability Act</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CMR</td>
<td>Carcinogenic-mutagenic-toxic for reproduction</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical oxygen demand</td>
</tr>
<tr>
<td>DIN</td>
<td>German Institute for Standardization</td>
</tr>
<tr>
<td>DMEL</td>
<td>Derived minimum effect level</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived no effect level</td>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
</tr>
<tr>
<td>EC50</td>
<td>half maximal effective concentration</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
</tr>
<tr>
<td>Er50</td>
<td>Reduction of Growth Rate</td>
</tr>
<tr>
<td>ERG</td>
<td>Emergency Response Guide Book</td>
</tr>
<tr>
<td>FDA</td>
<td>Food and Drug Administration</td>
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<tr>
<td>GHS</td>
<td>Globally Harmonized System of Classification and Labelling of Chemicals (GHS)</td>
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<tr>
<td>GLP</td>
<td>Good Laboratory Practice</td>
</tr>
<tr>
<td>GMO</td>
<td>Genetic Modified Organism</td>
</tr>
<tr>
<td>HCS</td>
<td>Hazard Communication Standard</td>
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<tr>
<td>HMIS</td>
<td>Hazardous Materials Identification System</td>
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<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IBC</td>
<td>Intermediate Bulk Container</td>
</tr>
<tr>
<td>ICAO-TI</td>
<td>International Civil Aviation Organization- Technical Instructions</td>
</tr>
<tr>
<td>ICCA</td>
<td>International Council of Chemical Association</td>
</tr>
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<td>ID</td>
<td>Identification number</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods</td>
</tr>
<tr>
<td>IUPAC</td>
<td>International Union of Pure and Applied Chemistry</td>
</tr>
<tr>
<td>ISO</td>
<td>International Organization For Standardization</td>
</tr>
<tr>
<td>LC50</td>
<td>50 % Lethal Concentration</td>
</tr>
<tr>
<td>LD50</td>
<td>50 % Lethal Dose</td>
</tr>
<tr>
<td>L(E)C50</td>
<td>LC50 or EC50</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest observed adverse effect level</td>
</tr>
<tr>
<td>LOEL</td>
<td>Lowest observed effect level</td>
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<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships</td>
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<td>National Fire Protection Association</td>
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<td>No observed adverse effect level</td>
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<td>NOEC</td>
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<tr>
<td>NOEL</td>
<td>no observed effect level</td>
</tr>
<tr>
<td>o.c.</td>
<td>open cup</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Cooperation and Development</td>
</tr>
<tr>
<td>OEL</td>
<td>Occupational Exposure Limit</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, bioaccumulative, toxic</td>
</tr>
<tr>
<td>PEC</td>
<td>Predicted effect concentration</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted no effect concentration</td>
</tr>
<tr>
<td>RQ</td>
<td>Reportable Quantity</td>
</tr>
<tr>
<td>SDS</td>
<td>Safety Data Sheet</td>
</tr>
<tr>
<td>STOT</td>
<td>Specific Target Organ Toxicity</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>vPvB</td>
<td>very persistent, very bioaccumulative</td>
</tr>
<tr>
<td>voc</td>
<td>volatile organic compounds</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Material no.</td>
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<td>Order Number</td>
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<td>WHMIS</td>
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</tr>
<tr>
<td>WHO</td>
<td>WorkPlace Hazardous Materials Information System</td>
</tr>
<tr>
<td></td>
<td>World Health Organization</td>
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