SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

- **Product form**: Substance
- **Physical state**: Solid
- **Substance name**: (p-ISOPROPYLPHENYL)(p-METHYLPHENYL)IODONIUM TETRAKIS(PENTAFLUOROPHENYL) BORATE
- **Product code**: OMBO037
- **Formula**: C40H18BF20I
- **Synonyms**: CUMYL(TOLYL)IODONIUM TETRAKIS(PENTAFLUOROPHENYL)BORATE; 4-ISOPROPYLPHENYL)(4-METHYLPHENYL)IODONIUM TETRAKIS(PENTAFLUOROPHENYL)BORATE
- **Chemical family**: IODONIUM BORATE

1.2. Relevant identified uses of the substance or mixture and uses advised against

- **Use of the substance/mixture**: Chemical intermediate
- **For research and industrial use only**

1.3. Details of the supplier of the safety data sheet

**GELEST, INC.**
11 East Steel Road
Morrisville, PA 19067
USA
T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST
info@gelest.com - www.gelest.com

1.4. Emergency telephone number

- **Emergency number**: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

**Classification (GHS-US)**
- Acute Tox. 4 (Oral) H302

**Full text of H-phrases**: see section 16

2.2. Label elements

- **GHS-US labeling**: 
- **Hazard pictograms (GHS-US)**: 
- **Signal word (GHS-US)**: Warning
- **Hazard statements (GHS-US)**: H302 - Harmful if swallowed
- **Precautionary statements (GHS-US)**: P264 - Wash hands thoroughly after handling
  P270 - Do not eat, drink or smoke when using this product
  P330 - Rinse mouth
  P301+P312 - If swallowed: Call a doctor if you feel unwell
  P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Other hazards

- **No additional information available**

2.4. Unknown acute toxicity (GHS-US)

- **No data available**

SECTION 3: Composition/information on ingredients

3.1. Substance

- **Substance type**: Mono-constituent
- **Name**: (p-ISOPROPYLPHENYL)(p-METHYLPHENYL)IODONIUM TETRAKIS(PENTAFLUOROPHENYL) BORATE
- **CAS No**: 178233-72-2
(p-ISOPROPYLPHENYL)(p-METHYLPHENYL)IODONIUM TETRAKIS(PENATFlUOROPHENYL) BORATE

Safety Data Sheet

EC no: 422-960-3
EC index no: 053-005-00-5

Name: 4-isopropylphenyl)(4-methylphenyl)iodonium tetrakis(pentafluorophenyl)borate (CAS no) 178233-72-2
Product identifier: > 95
Classification (GHS-US): Acute Tox. 4 (Oral), H302

3.2. Mixture
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact: Wash with plenty of soap and water.

First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries after inhalation: May cause irritation to the respiratory tract.
Symptoms/injuries after skin contact: May cause skin irritation.
Symptoms/injuries after eye contact: May cause eye irritation.
Symptoms/injuries after ingestion: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media: Alcohol-resistant foam. Carbon dioxide. Dry chemical.
Unsuitable extinguishing media: Avoid water spray as n-butanol will be generated.

5.2. Special hazards arising from the substance or mixture
Fire hazard: Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Advice for firefighters
Firefighting instructions: Exercise caution when fighting any chemical fire.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.
(p-ISOPROPYLPHENYL)(p-METHYLPHENYL)IODONIUM TETRAKIS(PENTAFLUOROPHENYL) BORATE

Safety Data Sheet

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Avoid contact with skin and eyes. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust.

Hygiene measures: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in sealed containers below 5°C away from UV light exposure.

Incompatible materials: Bases.

Storage area: Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>4-Isopropylphenyl)(4-methylphenyl)iodonium tetrakis(pentafluorophenyl)borate (178233-72-2)</th>
<th>USA OSHA</th>
<th>OSHA PEL (TWA) (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>15 mg/m³ (nuisance dust)</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Provide local exhaust or general room ventilation.

Personal protective equipment: Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection: Neoprene or nitrile rubber gloves.

Eye protection: Chemical goggles. Contact lenses should not be worn.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: NIOSH-certified dust and mist (orange cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Solid

Appearance: Solid

Molecular mass: 1015.7 g/mol

Color: White

Odor: Odorless

Odor threshold: No data available

Refractive index: No data available

pH: No data available

Relative evaporation rate (butyl acetate=1): No data available

Melting point: 120 - 133 °C

Freezing point: No data available

Boiling point: No data available

Flash point: > 110 °C

Auto-ignition temperature: No data available

Decomposition temperature: > 235 °C (decomposes)

Flammability (solid, gas): No data available

Vapor pressure: No data available

Relative vapor density at 20 °C: No data available

Relative density: No data available

VOC content: < 3 %

Solubility: Insoluble in water. Reacts with water.

Log Pow: No data available

Log Kow: No data available

Viscosity, kinematic: No data available

Viscosity, dynamic: No data available

Explosive properties: No data available
(p-ISOPROPYLPHENYL)(p-METHYLPHENYL)IODONIUM TETRAKIS(PENTAFLUOROPHENYL) BORATE
Safety Data Sheet

<table>
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<th>Oxidizing properties</th>
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</thead>
<tbody>
<tr>
<td>Explosive limits</td>
<td>: No data available</td>
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</tbody>
</table>

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions
Decomposes on exposure to ultraviolet light. Decomposes >235°C.

10.4. Conditions to avoid
Ultraviolet light.

10.5. Incompatible materials
Bases.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity
Oral: Harmful if swallowed.

4-Isopropylphenyl)(4-methylphenyl)iodonium tetrakis(pentafluorophenyl)borate (178233-72-2)

<table>
<thead>
<tr>
<th>LD50 oral rat</th>
<th>1500 - 2000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>1500,000 mg/kg body weight</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Not classified

Serious eye damage/irritation
Rabbit eye: non-irritating

Respiratory or skin sensitization
Not classified

Germ cell mutagenicity
Not classified

Carcinogenicity
Not classified

Reproductive toxicity
Not classified

Specific target organ toxicity (single exposure)
Not classified

Specific target organ toxicity (repeated exposure)
Not classified

Aspiration hazard
Not classified

Symptoms/injuries after inhalation
May cause irritation to the respiratory tract.

Symptoms/injuries after skin contact
May cause skin irritation.

Symptoms/injuries after eye contact
May cause eye irritation.

Symptoms/injuries after ingestion
Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity
No additional information available

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
Other adverse effects
This substance may be hazardous to the environment.

Effect on ozone layer
No additional information available
Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

Not regulated for transport.

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

4-Isopropylphenyl)(4-methylphenyl)iodonium tetrakis(pentafluorophenyl)borate (178233-72-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

4-Isopropylphenyl)(4-methylphenyl)iodonium tetrakis(pentafluorophenyl)borate (178233-72-2)

Listed on the Canadian NDSL (Non-Domestic Substances List)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on ELINCS (European List of Notified Chemical Substances)
Listed on NZIoC (New Zealand Inventory of Chemicals)

15.3. US State regulations

(p-ISOPROPYLPHENYL)(p-METHYLPHENYL)IODONIUM TETRAKIS(PENTAFLUOROPHENYL) BORATE (178233-72-2)

<table>
<thead>
<tr>
<th>Regulations</th>
<th>U.S. - California - Proposition 65 - Carcinogens List</th>
<th>U.S. - California - Proposition 65 - Developmental Toxicity</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Female</th>
<th>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</th>
<th>No significance risk level (NSRL)</th>
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<td>U.S. - California - Proposition 65 - Reproductive Toxicity - Male</td>
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4-Isopropylphenyl)(4-methylphenyl)iodonium tetrakis(pentafluorophenyl)borate (178233-72-2)

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</tbody>
</table>

SECTION 16: Other information

Abbreviations and acronyms

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development.
(p-ISOPROPYLPHENYL)(p-METHYLPHENYL)IODONIUM TETRAKIS(PENTAFLUOROPHENYL) BORATE
Safety Data Sheet

Full text of H-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>Acute toxicity (oral) Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
</tbody>
</table>

HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur
Flammability : 1 Slight Hazard
Physical : 0 Minimal Hazard

Prepared by safety and environmental affairs.

Date of issue: 01/29/2015 Version: 1.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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