SAFETY DATA SHEET
In According with 3rd revision GHS SDS

Section 1 – Identification
Product Name: AB50, AB50P and AB75
Product Type: Powder
Product Description: Acetylene Black, Carbon Black
Chemical Name: Carbon Black
Chemical Formula: C
Chemical Family: Carbon
Product Use: Additive for battery, refractory, plastic and rubber, Pigment, Chemical reagent
Manufacturer: IRPC Public CO., LTD.
299 Moo 5 Sukhumvit Road, Amphur Muang, Rayong Thailand
Emergency Call: +66(0) 38 802560
Website: www.irpc.co.th, www.irpcmarket.com

Section 2 – Hazards Identification
Regulation (EC) No 1272/2008: Not Classified
Directive 67/548/EEC: Not Classified
GHS Classification: Not Classified
Hazard Pictograms: Not Applicable
Signal Word: Warning
Hazard Statements: H313 May be harmful in contact with skin
Precautionary Statements: P264 Wash hands thoroughly after handling
P302 If on skin: Wash with plenty of soap and water
P501 Dispose of contents/containers in accordance with local regulation
Other hazards: No Information Available

Section 3 – Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>EC Number</th>
<th>Percent weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylene Black</td>
<td>1333-86-4</td>
<td>215-609-9</td>
<td>100</td>
</tr>
</tbody>
</table>

Section 4 – First-aid Measures
Skin Exposure: Flush skin and hair with running water (and soap if available). Seek medical attention in
Eyes Exposure: Possible discomfort is due to foreign substance effect. Rinse thoroughly with plenty of water keeping eyelid open. If persistent discomfort, consult an ophthalmologist.
Inhalation: In case of product dust is released, may cause cough sneezing. Take affected persons out in the fresh air, if necessary.
Ingestion: If swallowed, no particular measures required.
Section 5 – Fire-fighting Measures

Suitable extinguishing agents: CO₂, dry chemical, foam and water fog.

Fire Fighting: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. Normal fog or nozzles water application and/or exclusion of air. Do not spray with high pressure fire extinguisher. Soaking with water may spread the fire due to floating powder.

Hazards during fire-fighting: Carbon monoxide and carbon dioxide. Flame may not be obvious when burning unless material is stirred and sparks are apparent.

Protective equipment: Use full protective fire fighting gear with self-contained breathing apparatus (MSHA/NIOSH approved).

Section 6 – Accidental Release Measures

Personal precautions: Wear personal protective equipment; see section 8.

Environmental precautions: Spilled acetylene black is not a hazardous waste. Do not allow entrance in sewage water, soil, stretches of water, groundwater, and drainage systems.

Cleanup: Sweep or spray with water and collect in a suitable container. Avoid production of dust. Based on information available to IRPC, this product is neither listed as a hazardous waste nor does it exhibit any of the characteristics that would cause it to be classified or disposed of as a RCRA hazardous waste.

Section 7 – Handling and Storage

Handling: Care should be taken during handling to prevent damage to packaging. Do not breathe the dust at the level above the recommended exposure limits. This product is a conductive material and may cause equipment failure or electrical short.

Storage conditions: Store in a dry place away from ignition sources and strong oxidizers.

Section 8 – Exposure Controls / Personal Protection

Exposure limits

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Reference</th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
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<tbody>
<tr>
<td>Acetylene Black</td>
<td>OSHA PEL</td>
<td>-</td>
<td>3.5</td>
<td>-</td>
<td>-</td>
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<tr>
<td></td>
<td>ACGIH TLV</td>
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<td>3.5</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

Personal protective equipments

Respiratory protection: If maximum admissible concentration value at the workplace is exceeded, apply dust mask with P1 particle filter.

Eye protection: Use safety glasses with side shields.

Protective clothing: Work clothing should be confined to the workplace and washed daily.

Hand protection: Recommended rubber glove.

Engineering controls: Exhaust ventilation should be designed to prevent accumulation and recirculation in the workplace and safely remove carbon black from the air.
Section 9 – Physical and Chemical Properties

Appearance : Odorless black powder
Melting point/range : Not Applicable
Boiling point/range : 3500 °C
Flash point : Not Applicable
Vapor pressure : Not Applicable
Density : 0.06 - 0.11 g/cm³
Solubility : Insoluble in water
pH value : 5 - 10
Viscosity : Not Applicable

Section 10 – Stability and Reactivity

Chemical stability : Stable at ambient temperature.
Condition to Avoid : Excessive heat or flame.
Material to Avoid : Strong oxidizers such as nitrates, chlorates, peroxides etc.
Dangerous decomposition : May be released in case of fire; carbon monoxide, carbon dioxide.
Danger of explosion : Will not occur at normal conditions.

Section 11 – Toxicological Information

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Route</th>
<th>Species</th>
<th>Acute Toxic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetylene Black</td>
<td>Oral</td>
<td>Rat</td>
<td>LD₅₀ &gt; 15400 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD₅₀ 3000 mg/kg</td>
</tr>
</tbody>
</table>

Irritating/corrosive effects

Eye Irritation : May cause slight temporary eye irritation
Skin Irritation : Prolonged contact may cause moderate skin irritation with local redness.
Respiratory Irritation : The dust may cause respiratory irritation at high dust concentration.
Ingestion Irritation : This material may be a slight health if ingested in large quantities.

OTHER INFORMATION

MUTAGENIC POTENTIAL:
Acetylene black cannot as such (insoluble inorganic compound) be tested in bacterial and other in-vitro systems. Organic solvent extracts of acetylene black can however contain traces of polycyclic aromatic hydrocarbon (PAH). These can cause negative and positive test results in different in-vitro test systems. A DMSO suspension of acetylene black produced negative

EXPERIENCES WITH HUMAN BEINGS:
Several epidemiological and clinical studies of workers in the acetylene black production industries show no evidence of clinically significant adverse health effects due to occupational exposure to acetylene black. No increased cancer risk was observed in worker exposed to acetylene carbon black.

CARCINOGENIC EFFECT:
International Agency for Research on Cancer (IARC) : Group 2B
- Agents Reviewed by the IARC Monographs

WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.
Section 12 – Ecological Information

Aquatic toxicity : EC50 > 5600 mg/l: *Daphnia magna* (OECD Guide-line 202)
NOEC 1000 mg/l: *Brachydanio rerio* (fresh water fish) (OECD Guide-line 203)

Persistence and degradability: The product is not easily biodegradable.
Bioaccumulation : Product is not expected to bioaccumulation because of physiochemical properties of the substances.
Mobility in soil : No relevant studies identified.
Other adverse effects : This substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Section 13 – Disposal Considerations

Disposal Methods:
Product Can be burned in suitable incineration plants or disposed of in accordance with the regulations issued by the appropriate local authorities.
Contaminated packaging Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated. Packaging which cannot be decontaminated should be disposed of like the material.

Section 14 – Transport Information

<table>
<thead>
<tr>
<th>Regulatory information</th>
<th>UN number</th>
<th>Class</th>
<th>Packing group</th>
<th>Label</th>
<th>Additional information</th>
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<tr>
<td>DOT</td>
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<td>-</td>
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<tr>
<td>ADR/RID</td>
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<tr>
<td>IMDG CODE</td>
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<td>-</td>
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<tr>
<td>ICAO/IATA</td>
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</tbody>
</table>

Section 15 – Regulatory Information

Regulations
The Product is NOT classified as dangerous for supply according to the CLP Regulation and the EC directive 67/548/EEC.

SARA TITLE III SECTION 311 HAZARDOUS CATEGORIES:
Immediate (Acute) Health Hazard : Yes
Delayed (Chronic) Health Hazard : Yes
Fire Hazard : No
Sudden Release of Pressure Hazard : No
Reactivity Hazard : No

HMIS – USA :
Health – 1, Flammability – 1, Reactivity – 0

NFPA – USA :
Health – 1, Flammability – 1, Reactivity – 0
**Section 16 – Other Information**

The information in this document is based on our best present. Nevertheless, it does not constitute a guarantee for any specific product features and does not establish any legally binding contract.

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT**

- **TLV**: Threshold Limit Value
- **PEL**: Permissible Exposure Limit
- **TWA**: Time Weighted Average
- **STEL**: Short-term Exposure Limit
- **LD50**: Lethal Dose
- **EC50**: Effective Dose
- **ACGIH**: American Conference of Industrial Hygienists
- **ADR**: European agreement concerning the international carriage of dangerous goods by road.
- **CLP**: Classification and Labeling of Packaging
- **DOT**: Department of Transportation
- **EC**: European Commission
- **GHS**: Globally Harmonized System of Classification and Labeling of Chemicals
- **HMIS**: Hazardous Materials Identification System
- **IATA**: International Air Transport Association
- **IARC**: International Agency for Research on Cancer
- **ICAO**: International Civil Aviation Organization
- **IMDG – CODE**: International maritime dangerous goods code
- **NFPA**: National Fire Protection Association
- **NOEC**: No Observed Effect Concentration
- **NIOSH**: The National Institute for Occupational Safety and Health
- **OSHA**: Occupational Safety and Health Administration
- **RID**: Regulations concerning the international carriage of dangerous goods by rail
- **SARA**: Superfund Amendments and Reauthorization Act

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