SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Trade name: SCGC™ LLDPE COMPOUND

Product type: Linear Low Density Polyethylene Compound (Color)

This SDS applies to all grades of LLDPE compound (color) manufactured by Thai Polyethylene Co., Ltd. /SCGC ICO Polymers Co., Ltd. (SCGC ICO)

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

Application of the substance / the preparation: Raw material for different industrial uses

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Thai Polyethylene Co., Ltd. /SCGC ICO Polymers Co., Ltd. (SCGC ICO)
10 I-1 Road, Map Ta Phut Industrial Estate, Muang, Rayong 21150 Thailand
Email: tpe-productstewardship@scg.com
www.scgchemicals.com

1.4 Emergency telephone number:

Environmental Health and Safety Department
Tel: +66 3891 2191

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- **Classification according to Globally Harmonized System (GHS):**

  The substance is not classified as hazardous according to GHS.

- **Classification according to Regulation (EC) No 1272/2008 (CLP):**

  The substance is not classified as hazardous according to the CLP regulation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC:**

  The substance is not classified as hazardous according to Directive 67/548/EEC or Directive 1999/45/EC.

2.2 Label elements

- **Labelling according to GHS:** None
- **Labelling according to Regulation (EC) No 1272/2008:** None
- **Hazard pictograms:** None

- **Signal word:** None
- **Hazard statements:** None
- **Precautionary statements:**

  Prevention: Not Applicable

  Response: Not Applicable

  Storage: Not Applicable

  Disposal: Not Applicable

- **Additional information:**
  - Powder on the floor may cause a serious slipping hazard.
  - Skin or eye contact with hot polymer can cause thermal burns.
  - Processing the polymer at high temperatures may form vapors that irritate the eyes and Respiratory tract.
  - Plastic powder may pose an environmental risk if not properly managed and released into the environment.

2.3 Other hazards

- **Results of PBT and vPvB assessment**

  This substance/mixture contains no components considered to be either persistent, bioaccumulative, and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Chemical characterization:

Mixture

Chemical Name	CAS No.	EC No. (Regulation (EC) No. 1272/2008)	Concentration (wt%)
Ethylene-1-butene copolymer	25087-34-7	607-541-7	> 96%
Additives	-	-	< 4%

SECTION 4: First Aid Measures

4.1 Description of first aid measures:

- **General information:**

  Take affected persons out of danger area and lay down.

- **After inhalation:**

  Move person to fresh air; if symptoms persist, consult a doctor.

- **After skin contact:**

  Wash exposed area with soap and water. Seek medical attention if symptoms develop or persist. If molten polymer comes in contact with the skin, cool rapidly with cold water or running water. Do not pull solidified polymer off the skin. Seek medical attention immediately.

- **After eye contact:**

  In case of dust contact with eyes, flush thoroughly with running water for 5-15 minutes. Remove contact lenses, if worn. Seek medical attention if irritating persists. For thermal eye burns, immediately flush eyes with running water for 5-15 minutes. Do not remove contact lenses, if worn. Seek medical attention immediately, preferably an ophthalmologist.

- **After swallowing:**

  Rinse out mouth with water and gargle with plenty of water. If swallowed, consult a doctor. May cause gastrointestinal blockage. Do not give laxative. Do not induce vomiting unless directed to do so by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed:

Skin and eye burns from molten product. Skin and eye irritation from product dusts. Irritated respiratory tract from dust inhalation.

4.3 Indication of any immediate medical attention and special treatment needed:

Treat symptomatically and supportively.

SECTION 5: Firefighting Measures

5.1 Extinguishing media:

- **Suitable extinguishing agents:**

  CO2, powder or water spray. Fight larger fires with water spray.

  Use fire extinguishing methods suitable to surrounding conditions.

- **Unsuitable extinguishing agents:**

  Do not use water jet

5.2 Special hazards arising from the substance or mixture:

- **Hazard combustion products:**

  Carbon dioxide (CO2), Carbon monoxide (CO), other organic vapors and soot.

5.3 Advice for firefighters:

- **Protective equipment:**

  Fire-fighters should wear appropriate protective equipment (includes fire-fighting helmet, coat, trousers, boots and gloves) and positive pressure self-contained breathing apparatus (SCBA).

- **Fire Fighting Procedure:**

  Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. If material is molten, do not apply direct water stream. Use fine water spray or foam. Cool surroundings with water to localize fire zone.

- **Additional information:**

  Collect contaminated firefighting water separately. It must not enter the sewage system. Cool endangered receptacles with water spray.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

- **For non-emergency personnel:**

  Material creates a slipping hazard on hard surfaces. Clean up spills from walking surfaces immediately. Eliminate sources of ignition. Avoid formation of dust.

- **For emergency responders:**

  Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

6.2 Environmental precautions:

- Avoid dispersal and contact with soil, waterways, sewers and groundwater.

6.3 Methods and material for containment and cleaning up:

- **For containment:** place in a designated and labeled waste container.
- **For cleaning up:** sweep or shovel into suitable containers. Do not allow water contaminated with powder to enter any waterway, sewer or drain.
- **Other information:** Dispose of contaminated material at an authorized site. Notify authorities if product enters sewers or public waters.

6.4 Reference to other sections:

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling:

- **Protective Measures:**

  Put on appropriate personal protective equipment (see Section 8). Avoid contacting molten material with eyes, skin and clothing. Avoid breathing dust and process fumes. Ensure good ventilation at the workplace. Prevent dust accumulation. Pneumatic conveying of powder other mechanical handling operations can generate large static electrical charges. Dust can be ignited by static electrical discharge. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Worker should handle the container with appropriate apparatus such as forklift and hand lift that avoid any sharp objects. If worker feel stiff, should take a rest sufficiently.

- **Advice on general occupational hygiene:**

  Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

  Always wash hands after handling the product.

7.2 Conditions for safe storage, including any incompatibilities:

- **Technical measures and storage conditions:**

  Electrically bond and ground equipment to reduce the potential for dust explosions. Store in dry, cool, dust-free and well-ventilated area at temperature below 50ºC. Protect from heat, direct sunlight and rain.

- **Stacking:**

  Prohibited stacking:

  Do not stack the chemical containers or mix them with other chemicals that may react unfavorably.

  Recommended stacking:

  Stack containers on stable, compatible surfaces, following proper labeling and segregation practices. Ensure the heavy containers are places at the bottom to prevent toppling.

- **Packaging materials:**

  Store only in the original container. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

- **Materials to avoid:**

  Store away from incompatible substances, flammable substances and oxidizing agents.

- **Further information about storage conditions:**

  1. Avoid the release of plastic powder to the environment. Implement good housekeeping practices to prevent spills and losses during handling, transfer and processing.
  2. Spilled material should be promptly collected using dry methods (e.g. sweeping or vacuuming) and reused or disposed of appropriately. Do not allow powder to enter drains, surface waters or soil.
  3. Use an appropriate handling and storage method as described in Manufacturer's "Handling and storage guide" Manual. (Please visit this website www.scgchemicals.com)

7.3 Specific end uses:

No further relevant information available.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters:

- **Occupational Exposure Limits** Not established

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: Provide readily accessible eye wash stations and safety showers. Ensure adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

8.2.2 Personal protective equipment:

- **Eye/Face protection** Use safety glasses with side shields. If this material is heated and there is potential for dust, wear chemical goggles.
- **Skin protection**
  - **Hand protection** Skin contact should be minimized. Use gloves to protect from mechanical injury. Chemical protective gloves should not be needed when handling this material. Use insulated gloves when handling the hot or molten material.
  - **Body protection** At ambient temperatures use of clean and protective clothing is good industrial practice. If the material is heated or molten, wear thermally insulated, heat-resistant gloves that are able to withstand the temperature of the molten product. If this material is heated, wear insulated clothing to prevent skin contact if engineering controls or work practices are not adequate.
- **Respiratory protection** A properly fitted air purifying respirator or air supply respirator should be worn if a risk assessment indicates that respiratory protection is necessary. Respirator selection must be based upon known or measured levels of exposure.

8.2.3 Environmental exposure control: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

- **Appearance:** Powder
- **Physical state:** Solid
- **Color:** Different according to coloring
- **Odor:** Light
- **Odor threshold:** No data available
- **pH:** Not applicable
- **Melting point:** 120-130 °C
- **Boiling point** Not applicable
- **Flash point:** No data available
- **Evaporation rate:** Not applicable
- **Flammability (solid, gas):** No
- **Upper/lower explosion limits:** Not applicable
- **Vapor pressure:** Not applicable
- **Vapor density** Not applicable
- **Relative density:** No data available
- **Density at 23°C** 0.90-0.97 g/cm^3
- **Solubility in water:** Insoluble.
- **Partition coefficient, n-octane/water:** No data available
- **Auto-ignition temperature:** No data available
- **Decomposed temperature:** >300 °C
- **Viscosity, kinematic:** Not applicable
- **Viscosity, dynamic:** No data available
- **Explosive properties:** No
- **Oxidizing properties:** No

9.2 Other information: No further relevant information available.

SECTION 10: Stability and Reactivity

10.1 Reactivity:

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability:

The product is stable at normal handling and storage conditions.

10.3 Possibility of hazardous reactions:

Polymerization will not occur. Dust may form explosive mixture in air.

10.4 Conditions to avoid:

Avoid prolonged storage at elevated temperature. Exposure to elevated temperatures can cause product to decompose (Temperature should less than 300°C). See Technical Datasheet for suitable processing condition.

Avoid dust formation.

Avoid the build-up of electrostatic charge.

10.5 Incompatible materials:

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products:

Burning can produce carbon monoxide and/or carbon dioxide and other harmful products. The decomposition products are low molecular weight oligomers, hydrocarbons and hydrocarbon oxidation product (aldehydes, alcohols, organic acids) depending on temperature and air availability.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects:

- **Acute toxicity:**

  LD50 oral, rat — Not determined.

- **Skin corrosion/irritation:** Non-irritating to skin. Mechanical injury only. Molten polymer may cause serious thermal burns.

- **Eye damage/irritation:** Dust may cause eye irritation upon repetitive or prolonged exposure. Molten polymer may cause serious thermal burns. Vapors released during thermal processing may cause eye irritation experienced as mild discomfort and redness.

- **Sensitization to the respiratory tract:** No effects are expected for ingestion of small amounts. May cause choking if swallowed.
- **Skin sensitization:** No relevant data found.
- **Germ cell mutagenicity:** No relevant data found.
- **Carcinogenicity:** No relevant data found.
- **Reproductive toxicity:** No relevant data found.

11.2 Additional toxicological information: When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

SECTION 12: Ecological Information

12.1 Toxicity:

- **Aquatic toxicity:** Not expected to be acutely toxic, but material in powder form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

12.2 Persistence and degradability: Not easily biodegradable

12.3 Bioaccumulative potential: This material is not expected to bioaccumulation because of the relatively high molecular weight (MW greater than 1000).

12.4 Mobility in soil: This material is expected to remain in the soil and float on the water surface

12.5 Results of PBT and vPvB assessment:

- **PBT:** Not contained
- **vPvB:** Not contained

12.6 Endocrine disrupting properties Not determined

12.7 Other adverse effects: Avoid release to the environment.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods:

- **Waste disposal:** Do not dump into any sewers, on the ground, or into any body of water. All disposal practices must be in compliance with official or local regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable regulations are the responsibility solely of the waste generator.
- **Packaging disposal:** Do not reuse container. Disposal must be in compliance with official or local regulations. The packaging only uses for industrial purpose.
- **Waste treatment option:** Reuse or recycle if not contaminated. The product may be safely used as fuel. Proper combustion does not require any special flue gas control. Check with local regulations discharge into the environment must be avoided
- **Other disposal recommendations:** Disposal must be made according to official or local regulations.

SECTION 14: Transport information

14.1 UN-Number:

- ADR, IMDG, IATA: Not regulated

14.2 UN proper shipping name:

- ADR, IMDG, IATA: Not regulated

14.3 Transport hazard class(es):

- ADR, IMDG, IATA
- Class: Not regulated

14.4 Packing group:

- ADR, IMDG, IATA: Not regulated

14.5 Environmental hazards:

- Marine pollutant: No

14.6 Special precautions for user: Not applicable.

14.7 Transport in bulk: Not applicable.

(According to Annex II of MARPOL73/78 and the IBC Code)

- Transport/Additional information: Not dangerous according to the above specifications. Inspect the packaging or container for any damage before transportation and utilize appropriate handling equipment. Be careful of collisions while lifting and transporting
- UN "Model Regulation": -

SECTION 15: Regulatory information

15.1 Chemical inventories For further information, please contact your designated Sales or Technical Service representative.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

Recommended Uses and Restrictions This product is a raw material for industrial conversion. We recommended you to use this product under description in this document only.

15.3 EU REACH Regulations: The synthetic polymer microparticles supplied are subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

15.4 Generic information: The identity of the polymers contained in the substance or mixture: 3901 Polymers of ethylene compound in primary forms. Concentration of Synthetic Polymer Microparticles in the substance or mixture: 96-100%

SECTION 16: Other information

Recommended Uses and Restrictions

This product is a raw material for industrial conversion. We recommended you to use this product under description in this document only.

Issued by

Thai Polyethylene Co., Ltd

10 I-1 road, Map Ta Phut Industrial Estate, Muang, Rayong 21150 Thailand

Email: tpe-productstewardship@scg.com

Disclaimer:

- It is customer's responsibilities to inspect and test the product for suitability of the customer's own use and purpose. The customer is responsible for appropriate, safe, legal use, processing and handling of the product.
- To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. We however do not assume any liability whatsoever for the accuracy and completeness of the information contained herein.
- We make no warranties which extend beyond the description herein. Nothing herein shall constitute any implied warranty of merchantability or fitness for a particular purpose.
- No liability can be accepted in respect of the use of the product in conjunction with other materials. The information contained herein relates exclusively to the product when it is not used in conjunction with any third party's materials.

Abbreviations and acronyms:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)