GHS
SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

MANUFACTURER/SUPPLIER
Exide Technologies
25102 Exide Drive
Forest City, MO 64451

Exide Technologies
2601 Mt Pleasant Blvd
Muncie, IN 47302

FOR FURTHER INFORMATION
Primary Contact:
Exide SDS Support (770) 421-3485
Secondary Contact:
Joe Bolea (423) 989-6377
Fred Ganster (610) 921-4052
Joe Kumper (678) 566-9380

CHEMICAL/TRADE NAME: *Polypropylene Plastic Chips from* Exide *Lead Acid Battery Recycling at Muncie, IN and Canon Hollow, MO*

PRODUCT ID: N/A

CHEMICAL FAMILY/ CLASSIFICATION: Polypropylene Copolymer with Lead

FOR EMERGENCY
CHEMTREC (800) 424-9300
(703) 527-3887 – Collect
24-hour Emergency Response Contact
Ask for Environmental Coordinator

II. HAZARD IDENTIFICATION

Signal Word: Danger

Category:	GHS Codes	Description
Health:Repro 1A (lead)	H360df	May damage fertility or unborn child.
Carc. 1B (lead)	H350	May cause cancer through ingestion.
Environment:		
Aquatic Acute 2		
Aquatic Chronic 3	H401	Toxic to aquatic life.
	H412	Harmful to aquatic life with long lasting effects.
Hazards Not Otherwise Classified:		
This product is present in a massive form as a plastic with alloy. It does not present the same hazards when the individual components are in their powdered forms. In the massive form this material is not considered hazardous, but when present in its powdered form or as a dust from cutting or other operations that generate dust a dust explosion hazard may be present. Molten material may produce fumes that are toxic, or irritating, and may cause metal fume fever due to residual lead. When machined or physically altered material may produce dusts or ribbons that may be irritating or harmful. Small chips, fine turnings and dust from processing may be ignitable. Avoid inhalation of metal dusts and fumes. May cause an influenza-like illness. Avoid skin and eye contact with dusts to prevent mechanical irritation. When processed or where dust is generated a combustible dust hazard may be present. Avoid generating dust, generating sparks, ignition sources, and take all precautions.	P201 P202 P260 P281 P308+P313 P405 P501	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/vapors. Use personal protective equipment as required; IF exposed or concerned: get medical advice/attention. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulation.

III. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	*CAS Number*	*% by Wt.*	
Inorganic compounds of: Lead Polypropylene Copolymer	 7439-92-1 9003-07-0	 0.01-0.5 99.5 - 99.99	*Exide has determined this product to be non-hazardous in accordance with U.S. Occupational Safety and Health Act regulations and definitions specifically the Hazard Communication Standard 29 CFR 1910.1200. While no PEL is established, it is recommended that this product be treated as reportable dust nuisance with OSHA PEL of 5 mg/m^3.*

IV. FIRST AID MEASURES

Take proper precautions to ensure you own health and safety before attempting to rescue a victim and provide first aid.

Inhalation: If affected by fumes from heated material, remove from source of exposure and move the affected person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin Contact: If burned by contact with hot material, flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. No attempt should be made to detach polymer adhering to the skin or to remove clothing attached with molten material. Thermal burns require immediate medical attention. Cold material: Wash with soap and water.

Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

V. FIRE FIGHTING MEASURES

Flash Point:	Not Applicable - Inorganic lead compound is not a combustible material, nor will it explode under conditions of normal use (see V, REACTIVITY DATA).
Flammable Limits:	LEL = N/A ; UEL = N/A
Extinguishing media:	CO_2; foam; dry chemical. **DO NOT** use water jet.

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Hazardous Combustion Products: N/A

VI. ACCIDENTAL RELEASE MEASURES

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Granules spilled on the floor can cause slipping. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Small spill: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Lead dust or particulate should be vacuumed (using HEPA filter) or wet-swept. Use controls that minimize fugitive emissions. Do not dry sweep nor use compressed air. Place in dry, closed containers for disposal or recycling.

Large spill: Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Water Spill: Water should be screened to remove plastic. Spills into storm water should be reported for proper clean-up handling by environmental experts.

VII. HANDLING AND STORAGE

Handling: AVOID SKIN CONTACT Proper housekeeping should be maintained. Spills should be cleaned immediately to prevent slip hazards and environmental contamination. Accumulated dust and debris should be removed from storage area. Grounding of equipment and storage vessels is recommended to prevent static shock. No smoking, eating, or drinking around this material.
Storage: Material should be kept in closed containers in a dry environment. Material should not be stored in open sunlight.

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

	Occupational Exposure Limits (mg/m^3)					
Ingredient:	US OSHA	US ACGIH	US NIOSH	Quebec PEV	Ontario OEL	EU OEL
Inorganic forms of:						
Lead	0.05	0.05	0.05	0.05	0.05	0.15(a)
Polypropylene Copolymer	N/A	N/A	N/A	N/A	N/A	N/A

Engineering Controls (Ventilation):

Adequate ventilation is recommended. Specialized ventilation may be required by extruders or in areas with poor air flow. Ignition sources should be identified and controlled before product is introduced. If dust/angel hair is produced in production process, special vacuum and ventilation may be required. Material lines and storage containers should be grounded or banded.

Hygiene Practices:

Avoid prolonged or unnecessary direct contact with plastic chips /residue. Wear gloves if it is necessary to handle this material. Wash hands thoroughly before eating, drinking or smoking.

Respiratory Protection (NIOSH/MSHA approved):

As specified by 29 CFR 1910.1025 (f) of the Federal Occupational Safety and Health Administration Standards for Occupational Exposure to lead. Other local and state regulations may also apply. Where exposure is above the permissible exposure limit or the threshold limit values, the minimum respiratory protection recommended is a negative pressure half-mask respirator with high-efficiency cartridges that are NIOSH/MSHA approved against dust, mist, and fumes having a TWA of 0.05 mg/m^3.

Skin Protection:

Protective gloves, long pants, closed-toed shoes, and long-sleeve shirts should be worn to prevent thermal burning.

Eye Protection:

Safety glasses with side shields or goggles should be worn.

Other Protection:

Coveralls or other full body clothing shall be worn during product use and properly laundered after use, with the wash water disposed of in accordance with local, state and federal regulations. Hard hat, safety boots and other safety equipment should be worn as appropriate for the industrial environment. Personal clothing and shoes should be protected from contamination with this product.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Battery Grade Polypropylene (Plastic) chips Containing Lead

Physical Form	Solid		Color	Opaque
Boiling Point	N/A		Specific Gravity	0.910-0.920
Melting Point	250 - 350oF (120 - 175o C)		Density	0.940-0.955
% Solubility in Water	Insoluble		Vapor Pressure (mm Hg)	N/A
Evaporation Rate	N/A		pH	N/A
			Vapor Density (AIR=1)	N/A
Appearance and Odor Threshold	Flat to Spherical Chips Slight waxy odor when hot.		Viscosity	N/A
Freezing point	N/A		% Molecular by Weight	N/A
Flammability	Not Determined. The material will burn in fire situations.			

X. STABILITY & REACTIVITY DATA

Stability: Stable __X
Unstable ___

Conditions to Avoid: Keep away from sparks, excessive heat sources, oxidizers like peroxides and chlorates.

Incompatibilities: (materials to avoid) Oxidizers

Hazardous Decomposition Products: N/A. Will not occur

Hazardous Polymerization: Carbon monoxide and carbon dioxide

XI. TOXICOLOGICAL DATA

Routes of Entry:
Skin contact and eyes

Acute Toxicity:
Inhalation LD_{50}: Elemental Lead: Acute Toxicity Point Estimate = 4500 ppmV (based on lead bullion)

Oral LD_{50}: Elemental lead: Acute Toxicity Estimate (ATE) = 500 mg/kg body weight (based on lead bullion)

Inhalation:
Fumes from processing may cause respiratory irritation.

Ingestion:
Particulates may cause choking if swallowed.

Skin Contact:
No irritation to skin at room temperature. Molten plastic may cause thermal burns.

Eye Contact:
Exposure to particulates may result in mechanical abrasion and irritation. Fumes from processing may cause irritation and sensitivity.

Synergistic Products:
Lead compounds: Synergistic effects have been noted with heavy metals (arsenic, cadmium, mercury), N-nitroso-N-(hydroxyethyl)ethylamine, N-(4-fluoro-4-biphenyl)acetamide, 2-(nitrosoethylamine)ethanol, and benzo[a]pyrene.

Carcinogenicity:
OSHA: No NTP: No IARC: No

This material is not a known carcinogen. Exposure information is based upon typical operating conditions. Misinterpretation of data is possible. Unforeseen dangers may exist in various operations, thus training on handling of materials is recommended. Individuals trained in SDS interpretation should present this information.

Additional Information: N/A

Medical Conditions Generally Aggravated by Exposure:
Lead and its compounds can aggravate some forms of kidney, liver, and neurologic diseases.

Additional Health Data:

Work clothes and work equipment used in contaminated areas must remain in designated areas and never taken home or laundered

XII. ECOLOGICAL INFORMATION

Environmental Fate: No information is available. Chips are considered a storm-water pollutant. Animals may swallow material causing digestive system blockage. Material is not biodegradable. Material is 100% recyclable.

Environmental Toxicity: Aquatic Toxicity:

Lead: 48 hr LC_{50} (modeled for aquatic invertebrates): <1 mg/L, based on lead bullion

Polypropylene Copolymer: Not acutely toxic

XIII. DISPOSAL INFORMATION

US

Disposal Methods: Material should be disposed of in accordance with all laws including: state, federal, local, and environmental guidelines.

Recycling Methods: Polypropylene is recyclable and should be reprocessed when possible.

XIV. TRANSPORT INFORMATION

GROUND – US-DOT/CAN-TDG/EU-ADR/APEC-ADR:

UN Number: UN3077
UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, n.o.s (Lead)
Transport Hazard Class: 9
Environmental Hazards: Marine pollutant NO
Transport in bulk: See 49 CFR 173.240

AIRCRAFT – ICAO-IATA:

UN Number: UN3077
UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, n.o.s (Lead)
Transport Hazard Class: 9
Environmental Hazards: Marine pollutant NO
Transport in bulk: See IATA Packing Instruction 956 and Special Provision A97, A158, A179

VESSEL – IMO-IMDG:

UN Number: UN3077
UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, n.o.s (Lead)
Transport Hazard Class: 9
Environmental Hazards: Marine pollutant NO
Transport in bulk: See IMDG Packing Instructions T1, BK1, BK2, BK3 and Provision TP33

SPECIAL PRECAUTIONS:

- Transport may require packaging and paperwork, including the Nature and Quantity of goods, per applicable origin/destination/customs points as-shipped. North American Emergency Response Guide #171.
- NOTE: Transport restrictions are based on the mass of the lead impurity, not the mass of the polypropylene copolymer.

XV. REGULATORY INFORMATION

United States:

CERCLA (Superfund) and EPCRA:

(a) EPCRA Section 312 Tier Two reporting is required for this product if lead is present in quantities of **10,000 lbs** or more.

(b) **Supplier Notification:** This product contains toxic chemicals that may be reportable under EPCRA Section 313 Toxic Chemical Release Inventory (Form R) requirements. For a manufacturing facility under SIC codes 20 through 39, the following information is provided to enable you to complete the required reports:

Chemical	CAS	Percent by Weight
Lead	7439-92-1	0.01 – 0.5%

If you distribute this product to other manufacturers in SIC Codes 20 through 39, this information must be provided with the first shipment of each calendar year.

Note: The Section 313 supplier notification requirement does not apply to materials that are "consumer products".

TSCA: Each ingredient chemical listed in Section III of this SDS is also listed on the TSCA Registry.

OSHA: Considered hazardous under Hazard Communication Act (29CFR1910.1200)

RCRA: Lead contaminated material may be regulated as a characteristic hazardous waste EPA hazardous waste number D008.

Consult local or state environmental agency and/or federal EPA for guidance.

CAA: Exide Technologies supports preventative actions concerning ozone depletion in the atmosphere due to emissions of CFC's and other ozone depleting chemicals (ODC's), defined by the USEPA as Class I substances. Pursuant to Section 611 of the Clean Air Act Amendments (CAAA) of 1990, finalized on January 19, 1993, Exide established a policy to eliminate the use of Class I ODC's prior to the May 15, 1993 deadline.

HMIS:

Health:	=	0
Flammability:	=	1
Reactivity:	=	0
PPE:	=	E

NFPA:

Health (blue):	=	1
Flammability (red)	=	0
Reactivity (yellow):	=	0
Specific Hazard	=	None

US State Notifications & Warnings:	**Identification**	**Notifications/Warning**
California	California Proposition 65	"WARNING: This product contains lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm."
		The following chemicals identified to exist in the finished product as distributed into commerce are known to the State of California to cause cancer and birth defects or other reproductive harm: Lead–CAS No. 7439-92-1; 0.01-0.5 % wt.
	Consumer Product Volatile Organic Compound Emissions	This product is not regulated as a consumer product for purposes of CARB/OTC VOC Regulations, as sold for the intended purpose and into the industrial/commercial supply chain.

Country/Organization	**Identification**	**Notifications/Warning**
Canada	All chemical substances in this product are listed on the CEPA DSL/NDSL or are exempt from list requirements.	This product has a WHMIS Classification of D2A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Refer to the Controlled Products Regulations for product labeling requirements
	NPRI and Ontario Regulation 127/01	This product contains the following chemicals subject to the reporting requirements of Canada NPRI and/or Ont. Reg. 127/01: Chemical — CAS # — %wt Lead — 7439-92-1 — 0.01-0.5
	Toxic Substances List	Lead
EU	European Inventory of Existing Commercial Chemical Substances (EINECS):	All ingredients remaining in the finished product as distributed into commerce are exempt from, or included on, the European Inventory of Existing Commercial Chemical Substances.

XVI. OTHER INFORMATION

DATE ISSUED: May 20, 2015

OTHER INFORMATION:	Distribution into Quebec to follow Canadian Controlled Product Regulations (CPR) 24(1) and 24(2). Distribution into the EU to follow applicable Directives to the Use, Import/Export of the product as-sold.
SOURCES OF INFORMATION:	International Agency for Research on Cancer (1987), IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: Overall Evaluations of Carcinogenicity: An updating of IARC Monographs Volumes 1-42, Supplement 7, Lyon, France. Ontario Ministry of Labor Regulation 654/86. Regulations Respecting Exposure to Chemical or Biological Agents.

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