

**MATERIAL SAFETY DATA SHEET****Product:** PERMITE; LOJIC +; GS-80; GS-80 SPHERICAL; F400; ULTRACAPS +; ULTRACAPS S; SDI ADMIX; SDI SPHERICAL AND NEW ULTRAFINE CAPSULES.**Date / Revised:** 5.02.2013

Page 1 of 7

Revision: 11

1. Substance / Preparation and Company name

Product Name: Permite; Lojic +; GS-80, GS-80 Spherical; F400; Ultracaps +; Ultracaps S; SDI Admix; SDI Spherical and New Ultrafine Capsules.

Recommended use: For filling of cavitated teeth by dental professionals.

Manufacturer / Supplier

SDI Limited
3-13 Brunsdon Street, Bayswater
Victoria, 3153, Australia

SDI Inc.
729 N.Route 83, Suite 315
Bensenville 60106 IL, USA

Telephone:

+61 3 8727 7111 (Business hours)

Telephone:

630 238 8300 (Business hours)

Southern Dental Industries Ltd
Block 8, St Johns Court
Swords Road
Santry, Dublin 9, Ireland

SDI Brasil Indústria e Comércio Ltda
Rua Dr. Virgílio de Carvalho Pinto, 612
Pinheiros, São Paulo, 05415-020
Brasil

Telephone:

+353 1 886 9577 (Business Hours)

Telephone:

+55 11 3092 7100 (Business Hours)

Emergency contact number: +61 3 8727 7111**2. Composition / Information on ingredients****Capsules**

<u>Hazardous ingredients:</u>	<u>Wt. %</u>	<u>CAS No.</u>	<u>EC No.</u>	<u>Index No.</u>
Mercury, metallic (40-50% of total product)	100	7439-97-6	231-106-7	080-001-00

**MATERIAL SAFETY DATA SHEET****Product: PERMITE; LOJIC +; GS-80; GS-80 SPHERICAL; F400; ULTRACAPS +; ULTRACAPS S; SDI ADMIX; SDI SPHERICAL AND NEW ULTRAFINE CAPSULES.****Date / Revised: 5.02.2013****Page 2 of 7****Revision: 11**

3. Hazard Identification:

These products contain mercury. It is toxic if inhaled and acute exposure may cause allergic reactions including dermatitis, digestion and respiratory disorders.

California Prop 65 Warning

This product contains mercury, a chemical known to the State of California to cause birth defects or other reproductive harm.

Classification according to Directive 790/2009/EC:

	T+	Very toxic
	N	Dangerous for the environment
Risk phrases:	61	May cause harm to the unborn child
	26	Very toxic by inhalation
	48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation.
	50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases:	45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
	53	Avoid exposure - obtain special instructions before use.
	60	This material and its container must be disposed of as hazardous waste.
	61	Avoid release to the environment. Refer to special instructions/Safety Data Sheet.
	1/2	Keep locked up and out of reach of children
	7	Keep container tightly closed.
	9	Keep container in a well ventilated place.
	36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

4. First Aid Measures

General advice:	Contains metallic mercury. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
If inhaled:	Very toxic by inhalation. Remove to fresh air. Seek medical attention. If not breathing give artificial respiration. May cause respiratory disorders including inflammation and fluid retention. Inhalation of mercury vapours at high concentration can cause dyspnea, coughing, fever, severe nausea, vomiting, excess salivation, kidney damage with renal shutdown.
If ingested:	Call a physician immediately. Give large amounts of water.
On skin contact:	Wash skin with soap and water. Remove contaminated clothing. May cause irritation and allergic reaction.
On contact with eyes:	Wash with clear, tepid water. If irritation persists, obtain medical attention. May cause irritation and allergic reaction.

**MATERIAL SAFETY DATA SHEET**

Product: PERMITE; LOJIC +; GS-80; GS-80 SPHERICAL; F400; ULTRACAPS +;
ULTRACAPS S; SDI ADMIX; SDI SPHERICAL AND NEW ULTRAFINE
CAPSULES.

Date / Revised: 5.02.2013

Page 3 of 7

Revision: 11

5. Fire Fighting Measures

Suitable extinguishing media: As for adjacent fire. Avoid direct water stream. Do not allow water runoff to enter sewers and waterways. Remove product from the fire area if this can be done without risk.

Special protective equipment: In fires involving large quantities of product, use self-contained breathing apparatus and full protective clothing.

Further information: Hazardous decomposition products may be produced. (Sec. 10).

6. Accidental Release Measures

Spillages: Mercury presents a health hazard if incorrectly handled, and is dangerous for the environment. Spillages of mercury should be removed immediately, including from places which are difficult to access. Wearing protective clothing, use a plastic syringe to draw it up. Smaller quantities can be covered by sulphur powder and removed. Avoid inhalation of the vapour.

Personal precautions: Wear appropriate MSHA approved respirator, gloves, safety goggles and protective clothing to prevent skin contact and inhalation.

Environmental precautions: Prevent any spillage from entering drains or waterways.

Methods for cleaning up: Avoid contact with skin and eyes, and avoid inhalation. Pick up with dust pan or method that does not break up mercury into smaller droplets, etc. Store in a sealed plastic container, away from heat and flame, until disposal via an approved Recycler and according to local regulations.

7. Handling and storageHandling

Do not breathe powder and avoid exposed mercury surfaces. Wear appropriate gloves, goggles/face protection and protective clothing to prevent skin contact. Wash thoroughly after handling. Keep away from food, drink and around animal feed stuffs.

Storage

Keep container tightly closed and dry. Storage in large quantities (as in warehouse) should be in a ventilated, cool area. Do not store in metal containers. Keep away from sources of ignition and elevated temperatures, recommended <25°C.

Distribution

During distribution, to our customers, this product can be transported in non-refrigerated conditions between 15° to 25° C. This product can also withstand temperatures up to 40° C for short periods (2 to 3 days) and intermittent peaks up to 50°C.

**MATERIAL SAFETY DATA SHEET****Product:** PERMITE; LOJIC +; GS-80; GS-80 SPHERICAL; F400; ULTRACAPS +; ULTRACAPS S; SDI ADMIX; SDI SPHERICAL AND NEW ULTRAFINE CAPSULES.**Date / Revised:** 5.02.2013

Page 4 of 7

Revision: 11

8. Exposure controls and personal protection

8-Hour TWAs: Mercury - 0.025 mg/m³ (Skin) (ACGIH); 0.05 mg/m³ (Skin) (OSHA/UK & NOHSC/Australia); 0.1 mg/m³ (Short term) (Germany);
Silver - 0.01 mg/m³ (OSHA/Germany); 0.1 mg/m³ (ACGIH/U.K. & NOHSC/Australia)
Tin - 2 mg/m³ (OSHA/ACGIH/Germany & NOHSC/Australia); 5 mg/m³ (U.K.);
Copper - 1 mg/m³ (OSHA/ACGIH/Germany/UK & NOHSC/Australia)
Indium - 0.1 mg/m³ (OSHA/UK & NOHSC/Australia)

Zinc - 1 mg/m³ (ACGIH)

These levels are not anticipated under foreseeable use conditions.

Personal protective equipment

Respiratory equipment: None required under normal use conditions.

Hand protection: Impervious gloves.

Eye protection: Safety goggles.

General safety and hygiene measures: Use only as directed. Wash hands after use.

9. Physical and chemical properties

Form and Colour: Silver alloy powder and mercury in separate compartments of a plastic capsule.

Odour:	Odourless
Melting point / melting range:	(Mercury): -38.9°C
Boiling point / boiling range:	(Mercury): 356.6°C
Flash point:	Not applicable
Explosion limits:	Not applicable
Ignition temperature:	Not applicable
Vapour pressure:	(Mercury) 0.0012 mmHg at 20°C
Specific Gravity:	(Mercury) 13.6 g/cm ³
% Volatiles:	Not applicable
Solubility in water:	Insoluble
Solubility in other solvents:	Insoluble in alcohol
pH value:	Not available
Octanol / water partition coefficient (log POW):	Not determined
Viscosity:	Not determined
Other information:	N/A

**MATERIAL SAFETY DATA SHEET**

Product: PERMITE; LOJIC +; GS-80; GS-80 SPHERICAL; F400; ULTRACAPS +;
ULTRACAPS S; SDI ADMIX; SDI SPHERICAL AND NEW ULTRAFINE
CAPSULES.

Date / Revised: 5.02.2013

Page 5 of 7

Revision: 11

10. Stability and Reactivity

Thermal decomposition: No decomposition under normal conditions

Substance(s) to avoid: Strong oxidizers

Hazardous reactions: Mixtures of mercury with acetylene, ammonia, chlorine dioxide, methyl azide, chlorates, nitrates, or hot sulfuric acid can be explosive. Readily amalgamates with most metals.

Hazardous decomposition products: Slightly volatile at room temperature, atmospheric pressure. When exposed to high temperatures, mercury vaporizes to extremely toxic fumes.

11. Toxicological information

Critical hazards to man: Very toxic by inhalation. Toxic - danger of serious damage to health by prolonged exposure through inhalation. Acute exposure may cause allergic reactions including dermatitis, digestion and respiratory disorders. May cause harm to the unborn child..

Critical hazards to the environment: Dangerous for the environment.

None available regarding product. Some information supplied for ingredient(s).

LCLo / Inhalation / Rabbit: (Mercury) 29 mg/m³/30 Hour

Chronic Health Effects: Inhalation of mercury vapours, dusts or organic vapours, or skin absorption or mercury over long periods can cause mercurialism. Symptoms include tremors, inflammation of mouth and gums, excessive salivation, stomatitis, blue lines on gums, pain and numbness in extremities, weight loss, mental depression, and nervousness. Exposure may aggravate kidney disorders, chronic respiratory disease and nervous system disorders.

Alloy powder and mercury are in pre-dosed capsules, so the danger of exposure to mercury vapours is low.

12. Ecological information

German "Wassergefährdungs Klasse (WGK):3

This product must not enter effluent, ground water, surface water or the soil.

**MATERIAL SAFETY DATA SHEET**

Product: PERMITE; LOJIC +; GS-80; GS-80 SPHERICAL; F400; ULTRACAPS +;
ULTRACAPS S; SDI ADMIX; SDI SPHERICAL AND NEW ULTRAFINE.
CAPSULES.

Date / Revised: 5.02.2013

Page 6 of 7

Revision: 11

13. Disposal considerations

Product: Dispose of in accordance with local regulations.

The 1991 Environmental Protection (Duty of Care) Regulations SI No. 2839 and amendments should be noted (United Kingdom).

14. Transport information

IATA and IMDG:

Product: Amalgam Capsule
Contains: Mercury
Proper Shipping Name: Mercury contained in manufactured articles
UN Number: UN 3506
Packing Group: III

Class (sub risk): 8 (6.1) Corrosive & Toxic
IATA Limits: EQ - E0 (not permitted as excepted quantity)
LQ - Forbidden for passenger and cargo aircraft
CAO - no limit
PAX - no limit

IMDG Limits: LQ -5kg
EQ - E0 (not permitted as excepted quantity)

ADR/RID Class: UN 2809
Shipping name: Mercury
Class: 8
Packing Group: III
LQ - 5 kg

15. Regulatory information

These products are regulated by:

TGA
Medical Devices Directives 93/42/EEC
FDA
National regulations



MATERIAL SAFETY DATA SHEET

Product: PERMITE; LOJIC +; GS-80; GS-80 SPHERICAL; F400; ULTRACAPS +;
ULTRACAPS S; SDI ADMIX; SDI SPHERICAL AND NEW ULTRAFINE.
CAPSULES.

Date / Revised: 5.02.2013

Page 7 of 7

Revision: 11

16. Other information

Preparation of MSDS:

Prepared by: SDI Limited
3-13 Brunsdon Street, Bayswater
Victoria, 3153, Australia

Phone Number:
+61 3 8727 7111

The information contained in the Material Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

Department issuing MSDS: Research and Development
Contact: R&D Director
