SAFETY DATA SHEET

1. Identification

Product identifier **Aluma Shield**

Other means of identification

SDS number SDS-00012

Product code * See Section 16

Recommended use Lubricant, Grease and Release Product, Sealant

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name Thomas & Betts Corporation

Address 8155 T & B Boulevard
Memphis, TN 38125
US

Telephone 901-252-5000 ext.8324

E-mail Not available.

Emergency phone number For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
+1 703-741-5970

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Very toxic to aquatic life with long lasting effects.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
ZINC (POWDER)	7440-66-6	45-55

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire. Dousing metallic fires with water may generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined environment.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing promptly. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using the product. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children.

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	Occupational Exposure Limits are not relevant to the current physical form of the product.
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Nitrile gloves are recommended.

Skin protection	
Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Semifluid. Gel.
Color	Gray.
Odor	Petroleum-like.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	> 572 °F (> 300 °C)
Initial boiling point and boiling range	> 572 °F (> 300 °C)
Flash point	> 572.0 °F (> 300.0 °C)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.63
Solubility(ies)	
Solubility (water)	Negligible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Reacts slowly with water.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Acids. Oxidizing acids.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Product	Species	Test Results
Aluma Shield (CAS Mixture)		
Acute		
Oral		
LD50		5575 mg/kg, Acute Toxicity estimate

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Further information	This product has no known adverse effect on human health.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
ZINC (POWDER) (CAS 7440-66-6)			
Aquatic			
Algae	EC50	Pseudokirchneriella subcapitata	0.09 - 0.125 mg/l, 72 hours
Crustacea	EC50	Water flea (Daphnia magna)	0.139 - 0.908 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.211 - 0.269 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

Not regulated as dangerous goods.

This material is not regulated under 49 CFR if in a container of 119 gallon capacity or less.

IATA

UN number UN3082

UN proper shipping name Environmentally hazardous substance, liquid, n.o.s. (ZINC (POWDER))

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

Environmental hazards YES

ERG Code 9L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN3082

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ZINC (POWDER))

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant YES

EmS F-A, S-F

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

ZINC (POWDER) (CAS 7440-66-6) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
ZINC (POWDER)	7440-66-6	45-55

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

ZINC (POWDER) (CAS 7440-66-6)

US. New Jersey Worker and Community Right-to-Know Act

ZINC (POWDER) (CAS 7440-66-6)

US. Pennsylvania Worker and Community Right-to-Know Law

ZINC (POWDER) (CAS 7440-66-6)

US. Rhode Island RTK

ZINC (POWDER) (CAS 7440-66-6)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 17-December-2015

Revision date 04-May-2016

Revision # 3

Further information HMIS Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard
NFPA Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe
X - Consult your supervisor of S.O.P. for "SPECIAL" handling directions

HMIS® ratings Health: 0
Flammability: 1
Physical hazard: 0
Personal protection: X

NFPA ratings

List of abbreviations

DOT: Department of Transportation.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
HMIS: Hazardous Materials Identification System.
NFPA: National Fire Protection Association.
CAS Number: Chemical Abstracts Service Registry Number.
LC50: Lethal concentration 50% (concentration that kills 50% of test animals).
EC50: (Effective Concentration – 50%) The concentration that will produce a 50% in vivo inhibition of a biological or biochemical effect, in the test organisms or animals.
MARPOL: International Convention for the Prevention of Pollution from Ships.

Disclaimer

Thomas & Betts Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

*** Product Codes**

21059	3LM93	60120	60171NT	60284	ATL10-38
AP8	3LM94	60120BT	60171UF	60500-TB	ATL10-38-B1-6
M-53	3LM95	60122	60172	60501-TB	ATL1-38-B1-6
1XPZ5	3LM96	60123	60174	60507-TB	ATL20-12
1XPZ6	3LM97	60124	60174NT08	60512	ATL20-12-B1
1XPZ7	3LN04	60126	60176	60516	ATL20-38
1XPZ8	3LN05	60128	60178	60522-TB	ATL20-38-B1-6
1XPZ9	3LN06	60129	60230	60530-TB	ATL2-14
1XRA1	3LN07	60130	60236	60536	ATL2-38
1XRA2	3LN08	60132	60238	60542	ATL2-38-B1
1XRA3	3LN09	60134	60242	60548	ATL2-38-B1-6
1XRA4	3LN10	60135	60244	60554	ATL2-38-B2
1XRA5	3LN11	60136	60248	60560	ATL250-12
1XRA6	3LN12	60136G	60250	60565	ATL2502
1XRA7	3LN13	60138	60254	60568	ATL2-516
1XRA8	60096	60140	60256	60571	ATL30-12
3LM77	60097	60141	60262	60574	ATL30-38
3LM78	60099	60142	60265	60576	ATL30-38-B1-6
3LM79	60101-TB	60144	60267	60578	ATL350-12
3LM80	60102-TB	60147	60269	60584	ATL3502
3LM81	60103-TB	60148	60271	6MFT9	ATL4-14
3LM82	60104-TB	60150	60273	ASP1	ATL4-38
3LM83	60106-TB	60151	60273BT	ASP10	ATL4-516-B1-6
3LM84	60107-TB	60154	60273N	ASP2	ATL5002
3LM85	60108-TB	60156	60273NT	ASP20	ATL6002
3LM86	60109-TB	60157	60274	ASP250	ATL6-10-B1-6
3LM87	60112-TB	60160	60275	ASP30	ATL6-14
3LM88	60113-TB	60162	60275NT	ASP300	ATL7502
3LM89	60114-TB	60165	60276	ASP4	ATL8-10-B1-6
3LM90	60116-TB	60166	60278	ASP40	60277
3LM91	60117-TB	60168	60278N	ASP6	
3LM92	60118-TB	60171	60278NT	ASP8	