

BPEN3: Brite Pen Galvanizing Touch-Up Pen



Features:

- 3 fl oz pen
- 69% Zinc metal
- One-step color matches the shiny look of hot-dip galvanizing
- Meets ASTM-A780 for corrosion protection
- **Not available for air or ocean shipment**

Part #	Size
BPEN3	3 fl. oz

BPEN3: Brite Pen Galvanizing Touch-Up Pen - Data Sheet

TYPE Single pack, ready to apply, organic zinc compound with 70% zinc dust in the dry film.

FINISH Reflective metallic sheen

USAGE Zinc-rich top coat (or primer) for ferrous and non-ferrous surfaces

COVERAGE Gallon: 570 S.F. / Aerosol: 40 S.F. per can at 1 mil dry film thickness

FLASH POINT 55 degrees F. (TCC)

V.O.C. LBS/GAL. Gallon-5.21 / Aerosol-5.18

TEMPERATURE Application: 45° F to 100° / Limits (once applied) – 45° F to 450° F

CONDUCTIVITY 73 mille ohms per square at 3 mils dry (resistivity)

DRY TIME To touch, 15-30 minutes at 70 degrees F.

TOPCOATING After 24-48 hours, depending on atmospheric conditions, may be topcoated with acrylic, enamel, silicones, latex or chlorinated rubber type products. Lacquers or alkyd type should not be used.

SHELF LIFE Aerosol-12 months minimum / Gallon-5 years

PACKAGING 1-Gallon & 12.5 oz. Aerosol cans

SPECIFICATIONS Meets requirements of DOD-P-21035A; ASTM-A780-00; ASTM B117 (1,000 hrs.), MIL-P-26915C; MIL-P-46105, TT-P641, SSPC PS-1, PS-14, PS-20, PS-22, PS-29, and PS-30. California MIR compliance of 1.11

APPLICATION

- **Brushing:** Use as received in can (stir often)
- **Aerosol** Use as is. Shake well, invert can and clear nozzle after use
- **Spraying:** (*low pressure type*) Atomized air pressure 50 lbs.
 - Fluid pressure:* 15-20 lbs.
 - Orifice of tip:* 80/1000ths
 - Viscosity:* Reduce in ratio of 8 parts Brite Zinc to 1 part xylene or xylol.
- **Spraying:** (*airless type*)
 - Pump:* 30-1, Hose: 1/2" I.D. airless type
 - Orifice of tip:* 60° - 26/1000ths, Type of tip -Tungsten carbide, reversing
 - Filter screens:* Complete removal is recommended. If used, a 30 mesh is minimum.
 - Viscosity:* No reduction required
 - Recommended:* Connect hose directly to pump, without filter assembly, ensuring a hose length of 50 ft. max. Use least pressure possible. Start at 1500 lbs. and increase as required for good spraying properties.

GENERAL SURFACE PREPARATION

Following are recommended minimum requirements for substrate pre-treatment:

- Grease or Oils Solvent clean (SSPC-SP1)
- Rust scale Power tool (SSPC-SP3)
- Mill scale Sandblast (SSPC-SP6)

SCOPE

SURFACE PREPARATION & APPLICATION

Damaged areas caused by cutting, welding, drilling or abrasion. On all areas to be repaired, by brush or spray, apply at least two coats, to achieve a 2.5 to 3.0 mils, dry film thickness. Where feasible, first coat should be applied within two hours of the damage to the galvanized surface, to prevent oxidation of exposed areas. On areas damaged by welding, remove any weld spatter by wire brushing or equivalent, before use of Brite Zinc. Repair material should extend at least three inches beyond edges of damaged areas, to ensure continuity of galvanic action.

BPEN3: Brite Pen Galvanizing Touch-Up Pen - Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

- 1.1 Product Identifier**
Trade Name Brite Zinc Touch-Up Pens
Product Number B-001
- 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**
Product Use: Welding Process Aid
- 1.3 Details of the Supplier of the Safety Data Sheet**
Manufacturer: Weld-Aid Products
 14650 Dequindre
 Detroit , Michigan
Information Phone Number: +1 (313) 883-6977
 +1 (313) 883-4930
E-mail info@weldaid.com
- 1.4 Emergency Telephone Number**
Emergency Spill Information +1 (800) 255-3924

SDS Date of Preparation: November 21, 2014

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

CLP/GHS Classification (1272/2008):

Physical:	Health:	Environmental
Flammable Liquid Category 2	Aspiration Toxicity Category 1 Reproductive Toxicity Category 2 Specific Target Organ Toxicity – Repeat Exposure Category 2 Skin Irritation Category 2	Aquatic Acute Category 1 Aquatic Chronic Category 1

EU Classification (67/548/EEC): Highly Flammable (F), Harmful (Xn), Dangerous for the Environment (N) R11, R48/20, R63, R65, R67, R50/53

2.2 Label Elements

DANGER! Contains toluene



Hazard Phrases

H225	Highly flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H361	Suspected of damaging fertility or the unborn child.
H315	Causes skin irritation.
H373	May cause damage to kidneys, liver, nervous system and hearing through prolonged or repeated exposure.
H411	Very toxic to aquatic life with long lasting effects.

Precautionary Phrases

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment

BPEN3: Brite Pen Galvanizing Touch-Up Pen - Safety Data Sheet

P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe vapors.
P264	Wash thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P331	Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical attention.
P362	Take off contaminated clothing and wash before reuse.
P308 + P313	IF exposed or concerned: Get medical attention.
P370 + P378	In case of fire: Use carbon dioxide, alcohol foam or dry chemical for extinction.
P391	Collect spillage.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents and container in accordance with local and national regulations.

2.3 Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical Name	CAS# /	EINECS#	EU Classification (67/548/EEC)	GHS Classification Regulation (EC) No 1272/2008	%
Zinc	7440-66-6	231-175-3	N R50/53	Aquatic Acute Category 1 (H400) Aquatic Chronic Category 1 (H410)	30-36
2-methoxy-1-methylethyl acetate	108-65-6	203-603-9	R10	Flammable Liquid 3 (H226)	25-31
Toluene	108-88-3	203-625-9	F, Xi, Xn (Repr Cat. 3) R11, R38, R48/20, R63, R65, R67	Flammable Liquid Category 2 (H226), Reproductive Toxicity Category 2 (H361), Aspiration Toxicity Category 1 (304) Specific Target Organ Toxicity – Repeat Exposure Category 2 (H373) Skin Irritation Category 2 (H315), Specific Target Organ Toxicity – Single Exposure 3 (H336)	10-16
VM&P naphtha	64742-89-8	265-192-2	F, Xn R11, R65	Aspiration Toxicity Category 1 (H304) Flammable Liquid 3 (H226)	5-10
Stoddard Solvent	8052-41-3	232-489-3	Xn R10, R65	Aspiration Toxicity Category 1 (H304) Flammable Liquid 3 (H226)	5-10

See Section 16 for further information on EU and GHS Classification.

BPEN3: Brite Pen Galvanizing Touch-Up Pen - Safety Data Sheet

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

Eyes: Flush eyes immediately with water for several minutes, holding the eyelids apart. If irritation persists, get medical attention.

Skin: Remove contaminated clothing and shoes. Wash exposed area thoroughly with soap and water. Wash contaminated clothing before reuse. Get medical attention if irritation persists.

Inhalation: Remove to fresh air. If irritation or breathing difficulty occurs, get medical attention.

Ingestion: Ingestion is unlikely due to physical form. If swallowed, rinse mouth. Do not induce vomiting. Never give anything by mouth to an unconscious or drowsy person. Get immediate medical attention.

Notes to Physicians: Treat symptomatically.

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

May cause eye irritation. Causes skin irritation. Inhalation of vapors may cause respiratory irritation and central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness. Harmful or fatal if swallowed. Overexposure may cause liver, kidney, blood system and nervous system damage.

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

Immediate medical treatment is required if ingested.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media:

Use carbon dioxide, alcohol foam or dry chemical. Do not use water to extinguish fire. Water spray can be used to cool exposed containers and structures.

5.2 Special Hazards Arising from the Substance or Mixture

Unusual Fire and Explosion Hazards: Flammable liquid and vapor. Vapors are heavier than air and may accumulate in low lying area.

Hazardous Decomposition Products: Combustion may produce carbon monoxide, carbon dioxide and zinc oxide.

5.3 Advice for Fire-Fighters:

Firefighters should always wear self-contained breathing apparatus and full protective clothing for fires involving chemicals or in confined spaces.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Evacuate spill area and keep unprotected personnel away. Eliminate all ignition sources. Ventilate area. Wear appropriate protective clothing as described in Section 8.

6.2 Environmental Precautions:

Report releases as required by local, state and federal authorities.

6.3 Methods and Material for Containment and Cleaning Up:

Pick up and place into a container for disposal. Collect liquid with an absorbent material and place in an appropriate container for disposal.

6.4 Reference to Other Sections:

Refer to Section 8 for protective equipment and Section 15 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling:

Avoid contact with the eyes, skin and clothing. Avoid breathing vapors. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Do not use in poorly ventilated or confined spaces. Wash thoroughly with soap and water after handling and before eating, drinking or using restroom. Do not eat, drink or smoke in work areas.

Follow all SDS precautions when handling empty containers.

BPEN3: Brite Pen Galvanizing Touch-Up Pen - Safety Data Sheet

7.2 Conditions for Safe Storage, Including any Incompatibilities

Store in a cool, dry, well ventilated area away oxidizing agents and other incompatible materials. Keep containers tightly closed when not in use. Keep away from heat, sparks and flames. Protect from physical damage.

7.3 Specific end use(s):

Welding product

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Chemical Name	Exposure Limits
Zinc (as metal)	0.1 mg/m3 TWA DFG MAK; 0.4 mg/m3 STEL (respirable) 2 mg/m3 TWA DFG MAK
2-methoxy-1-methylethyl acetate	50 ppm TWA AIHA WEEL
Toluene	200 ppm TWA OSHA PEL, 300 ppm STEL 20 ppm TWA ACGIH TLV 50 ppm TWA EU IOEL, 100 ppm STEL 50 ppm TWA DFG MAK, 200 ppm STEL 50 ppm TWA UK OEL, 100 ppm STEL
Aliphatic Petroleum Distillates	5 mg/m3 TWA ACGIH TLV (inhalable) (as mineral oil) 5 mg/m3 TWA OSHA PEL (as oil mist) 10 mg/m3 STEL UK OEL
Stoddard Solvent	100 ppm TWA ACGIH TLV 500 ppm TWA OSHA PEL

8.2 Exposure Controls:

Engineering Controls: Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.

Respiratory Protection: None required under normal use conditions. If the exposure limits are exceeded an approved organic vapor respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with applicable regulations and good industrial hygiene practice.

Skin Protection: Wear impervious gloves such as viton or Teflon.

Eye Protection: Follow facility requirements. Chemical safety glasses should be worn to if contact is possible.

Other: Impervious clothing as needed to prevent contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties:

Appearance Silver liquid	Vapor Density: Not available
Odor: Solvent	Specific Gravity: 1.275
Odor Threshold: 2.14 ppm (toluene)	Water Solubility: Negligible
pH: Not available	Octanol/Water Partition Coefficient: Not available
Melting Point/Freezing Point: Not available	Autoignition Temperature: Not applicable
Boiling Point: 280-350°F (138-177°C)	Decomposition Temperature: Not applicable
Flash Point: <73°F (23C)	Viscosity: Not applicable
Evaporation Rate: <1 (ether = 1)	Explosion Properties: Vapors may be explosive in confined areas.
Flammable Limits: LEL: 0.9% (stoddard solvent) UEL: 7.1 (toluene)	Oxidizing Properties: No data available
Vapor Pressure: 9 mmHg @20°C	VOC: 55.31%

9.2 Other Information:

None

BPEN3: Brite Pen Galvanizing Touch-Up Pen - Safety Data Sheet

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity:**
Not reactive under normal conditions of use.
- 10.2 Chemical Stability:**
Stable under normal storage and handling conditions.
- 10.3 Possibility of Hazardous Reactions:**
None known
- 10.4 Conditions to Avoid:**
Keep away from heat, sparks and open flames.
- 10.5 Incompatible Materials:**
Avoid alkalies, acids and oxidizing agents.
- 10.6 Hazardous Decomposition Products:**
Carbon monoxide, carbon dioxide and zinc oxide.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 Information on Toxicological Effects:**
Eyes: May cause irritation with redness, tearing and swelling.
Skin: Skin contact may cause irritation, defatting of the skin or dermatitis.
Ingestion: Swallowing may cause gastrointestinal effects, and central nervous system effects including nausea, vomiting, diarrhea, dizziness, drowsiness, and unconsciousness. Aspiration during swallowing or vomiting may cause chemical pneumonia or lung damage.
Inhalation: May cause respiratory tract irritation and central nervous system effects such as dizziness, drowsiness, nausea, headache lightheadedness, stupor, and unconsciousness.

Acute Toxicity Values:

Zinc: Oral rat LD50 630 mg/kg
 2-Methoxy-1-methylethyl Acetate: Oral rat LD50 - 8532 mg/kg; Skin rabbit LD50 - >5 gm/kg
 Toluene: LD50 oral rat 5000 mg/kg; LD50 dermal rabbit 12,214 mg/kg; LC50 inhalation rat 8000 ppm/4hr.
 Aliphatic Petroleum Distillates: Oral rat LD50 >3000 mg/kg Skin rabbit LD50 3160 mg/kg
 Stoddard Solvent: Oral rat LD50 >5000 mg/kg, Skin rabbit LD50 >2000 mg/kg

Irritation: Prolonged skin contact with petroleum solvent may cause defatting of the skin and dermatitis. Toluene may cause mild irritation in rabbit's eye.

Corrosivity: This is not a corrosive product.

Sensitization: This product is not expected to cause sensitization. None of the components are respiratory or skin sensitizers.

Repeat Dose Toxicity: In animal studies, toluene has been shown to cause damage to the liver, kidneys, brain and hearing. Reports have associated repeated and prolonged overexposure to petroleum distillates with adverse liver, kidney and bone marrow effects and with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the product may be harmful or fatal. Stoddard solvent and VM&P naphtha have been shown to cause kidney and liver damage in repeat dose animal studies.

Carcinogen Status: NTP conducted a two year carcinogenicity study with Stoddard solvent in rats and mice. The studies indicated there was some evidence of carcinogenic activity in male rats but none in female rats. In mice there is equivocal evidence in female mice for carcinogenic activity but no evidence in male mice. IARC has classified petroleum solvents "not classifiable as to their carcinogenicity to humans. None of the components are listed as carcinogens by IARC, NTP, ACGIH, OSHA or the EU Substances Directive.

BPEN3: Brite Pen Galvanizing Touch-Up Pen - Safety Data Sheet

Germ Cell Mutagenicity: Stoddard solvent was negative in the AMES test, n a mouse lymphoma assay and in an in vivo bone marrow assay. Toluene was negative in the AMES and did not induce sister chromatid exchanges or chromosomal aberrations in a Chinese hamster ovary assay.

Toxicity for Reproduction In animal studies, toluene has been shown to cause fetal lethality and delayed development. Toluene has been detected in maternal milk in humans. It passes through the placental barrier in animals.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

Toluene: 96 hr LC50 Pimephales promelas (fathead minnow) 34.27 mg/l; 48 hr LC50 daphnia magna 313 mg/L
Stoddard Solvent: 72 hr EC50 Selenastrum capricornutum (algae) 4700 mg/L

12.2 Persistence and Degradability:

Toluene, and stoddard solvent, VM&P naphtha are readily biodegradable.

12.3 Bioaccumulative Potential::

The BCF for toluene is 13-90 which suggests bioaccumulation is low to moderate in aquatic organisms. Stoddard solvent, and VM&P naphtha have a calculated BFC of >3 which indicates there is a potential for bioaccumulation.

12.4 Mobility in Soil:

Toluene is estimated to have a KoC of 37-178 which indicates it will have a moderate to high mobility on soil.

12.5 Results of PBT and vPvB Assessment:

Not required.

12.6 Other Adverse Effects:

This product is classified as very toxic to aquatic organisms based on zinc content.

SECTION 13: DISPOSAL INFORMATION

13.1 Waste Treatment Methods

Dispose in accordance with local and national environmental regulations.

SECTION 14: TRANSPORT INFORMATION

	41.1 UN Number	41.2 UN Proper Shipping Name	14.3 Transport Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT		Consumer Commodity ORM-D			No
EU ADR/RID	UN1263	Paint Related Material	3	PGII	Yes
IMDG	UN1263	Paint Related Material	3	PGII	Yes

14.6 Special Precautions for User:

None

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code:

Not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture:

International Inventories:

US EPA TSCA Inventory: All of the components are listed on the TSCA inventory.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List.

Australia: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances (AICS).

BPEN3: Brite Pen Galvanizing Touch-Up Pen - Safety Data Sheet

U.S. REGULATIONS

OSHA Hazard Classification: Target organ effects, Irritant Flammable liquid

CERCLA: This product has a Reportable Quantity (RQ) of 2,777 lbs. based on the RQ for zinc of 1,000 lbs. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA SARA 302: This product does not contain chemicals regulated under SARA Section 302.

EPA SARA 311 Hazard Classification: Acute Health, Chronic Health, Fire Hazard

EPA SARA 313: This product contains the following chemicals that are regulated under SARA Title III, section 313:

Toluene	108-88-3	10-16%
Zinc	7440-66-6	30-36%

California Proposition 65: This product contains the following chemicals which are known to the State of California to cause cancer, reproductive toxicity or birth defects: Toluene 10-16% (developmental, female reproductive toxicity.)

INTERNATIONAL REGULATIONS

WHMIS Classification: Class B Division 2 (Flammable liquid), Class D Division 2 Subdivision A (Very toxic material causing other toxic effects)

15.2 Chemical Safety Assessment:

Not required

SECTION 16: OTHER INFORMATION

SDS Revision History:

12/30/11: Converted US SDS to EU REACH SDS

GHS Phrases for Reference (See Section 2 and 3):

H226 Flammable liquid and vapor

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to kidneys, liver, nervous system and hearing through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

EU Classes and Risk Phrases for Reference (See Sections 2 and 3):

F Highly Flammable

N Dangerous for the Environment

Xi Irritant

Xn Harmful

Rep Cat 3 Reproductive Category 3

R10 Flammable

R11 Highly flammable

R38 Irritating to skin.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R63 Possible risk of harm to the unborn child.

R65 Harmful: may cause lung damage if swallowed.

R67 Vapors may cause drowsiness and dizziness.

This sheet was compiled from the latest available information and reliable sources. Procedures are based on accepted usage. They are not necessarily all-inclusive and may vary in every circumstance. Weld-Aid provides no warranties either expressed or implied and assumes no responsibility for the accuracy or completeness of the data herein.