

MATERIAL SAFETY DATA SHEET

Bulldog Aerosol Adhesion Promoter



HEALTH	*	2
FLAMMABILITY		3
PHYSICAL		0
PPE		X



Printed: 09/24/2014
 Revision: 08/20/2014
 Supersedes Revision: 02/28/2008

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: A5000.4

Product Name: Bulldog Aerosol Adhesion Promoter

Manufacturer Information

Company Name: W. M. Barr
 2105 Channel Avenue
 Memphis, TN 38113

Phone Number: (901)775-0100

Emergency Contact: 3E 24 Hour Emergency Contact (800)451-8346

Information: W.M. Barr Customer Service (800)398-3892

Web site address: www.wmbarr.com

Preparer Name: W.M. Barr EHS Dept (901)775-0100

Synonyms
 ETPO123, ETPO123B

Revision Date: 08/20/2014

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components (Chemical Name)	CAS #	Concentration	OSHA TWA	ACGIH TWA	Other Limits
1. Toluene {Benzene, Methyl-; Toluol}	108-88-3	25.0 -50.0 %	200 ppm	50 ppm	No data.
2. Styrene {Phenylethylene; Vinyl benzine; Styrol}	100-42-5	<10.0 %	100 ppm	20 ppm	No data.
3. m-Xylene {Benzene, m-Dimethyl-}	108-38-3	1.0 -10.0 %	No data.	100 ppm	No data.
4. o-Xylene {Benzene, o-Dimethyl-}	95-47-6	1.0 -10.0 %	100 ppm	100 ppm	No data.
5. p-Xylene {Benzene, p-Dimethyl-}	106-42-3	1.0 -15.0 %	No data.	100 ppm	No data.
6. Ethylbenzene {Ethylbenzol; Phenylethane}	100-41-4	1.0 -10.0 %	100 ppm	100 ppm	No data.
7. Divinyl benzene (Benzene, Diethenyl-)	1321-74-0	<10.0 %	No data.	10 ppm	No data.
8. Methyl ethyl ketone {MEK; 2-Butanone}	78-93-3	10.0 -20.0 %	200 ppm	200 ppm	No data.
9. Butyl acetate {n-Butyl acetate. Acetic acid, Butyl ester}	123-86-4	10.0 -15.0 %	150 ppm	150 ppm	No data.
10. Ethylene glycol monobutyl ether acetate {(a glycol ether)}	112-07-2	< 5.0 %	No data.	20 ppm	No data.
11. Ethyl methacrylate {2-Propenoic acie, 2-methyl-, ethyl ester}	97-63-2	1.0 -10.0 %	No data.	No data.	No data.
12. Methyl ether {Dimethyl ether}	115-10-6	30.0 %	No data.	No data.	No data.
Hazardous Components (Chemical Name)	CAS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. Toluene {Benzene, Methyl-; Toluol}	108-88-3	500 ppm/(10min)	300 ppm	No data.	No data.
2. Styrene {Phenylethylene; Vinyl benzine; Styrol}	100-42-5	600 ppm/(5min/3hr)	200 ppm	40 ppm	No data.
3. m-Xylene {Benzene, m-Dimethyl-}	108-38-3	No data.	No data.	150 ppm	No data.
4. o-Xylene {Benzene, o-Dimethyl-}	95-47-6	No data.	No data.	150 ppm	No data.
5. p-Xylene {Benzene, p-Dimethyl-}	106-42-3	No data.	No data.	150 ppm	No data.
6. Ethylbenzene {Ethylbenzol; Phenylethane}	100-41-4	No data.	No data.	125 ppm	No data.

MATERIAL SAFETY DATA SHEET

Bulldog Aerosol Adhesion Promoter

Page: 2
Printed: 09/24/2014
Revision: 08/20/2014
Supersedes Revision: 02/28/2008

Hazardous Components (Chemical Name)	CAS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
7. Divinyl benzene (Benzene, Diethenyl-)	1321-74-0	No data.	No data.	No data.	No data.
8. Methyl ethyl ketone {MEK; 2-Butanone}	78-93-3	No data.	No data.	300 ppm	No data.
9. Butyl acetate {n-Butyl acetate, Acetic acid, Butyl ester}	123-86-4	No data.	No data.	200 ppm	No data.
10. Ethylene glycol monobutyl ether acetate {(a glycol ether)}	112-07-2	No data.	No data.	No data.	No data.
11. Ethyl methacrylate {2-Propenoic acie, 2-methyl-, ethyl ester}	97-63-2	No data.	No data.	No data.	No data.
12. Methyl ether {Dimethyl ether}	115-10-6	No data.	No data.	No data.	No data.

3. HAZARDS IDENTIFICATION

Emergency Overview

Danger! Flammable. Harmful or fatal if swallowed. Vapor Harmful. Skin and Eye Irritant. Contents Under Pressure.

Potential Health Effects (Acute and Chronic)

INHALATION ACUTE EXPOSURE EFFECTS:

Vapor Harmful. May cause dizziness, headache, irritation of the upper respiratory tract and lungs, irritation and injury to mucous membranes, watering of the eyes, weakness, drowsiness, nausea, loss of coordination, numbness in fingers, arms and legs, depression of the central nervous system, pulmonary edema, shortness of breath, loss of appetite, fatigue, stupor, anesthesia, narcosis, vomiting, lightheadedness, liver and kidney injury, insensibility and other central nervous system effects, blood disorders, nose tumors, brain damage, giddiness, olfactory changes, confusion, hearing impairment, slurred speech, coughing, hallucinations, irregular heartbeat, unconsciousness, coma, and death. Intentional misuse of this product by deliberately concentrating and inhaling vapors can be harmful or fatal.

SKIN CONTACT ACUTE EXPOSURE EFFECTS:

This product is a skin irritant. Product may be absorbed through the skin. May cause irritation, drying and cracking of the skin, defatting of the skin, dermatitis, itching, redness, swelling, tissue damage, inflammation, numbness in fingers and arms, discomfort or pain, erythema. May be absorbed readily to produce symptoms similar to those listed under ingestion.

EYE CONTACT ACUTE EXPOSURE EFFECTS:

This material is an eye irritant. May cause redness, tearing, corneal clouding, discomfort or pain with excessive blinking and tear production, excess redness and possible slight swelling of the conjunctiva, stinging, conjunctivitis, visual intolerance to light. If not promptly removed, will injure eye tissue, which may result in permanent damage.

INGESTION ACUTE EXPOSURE EFFECTS:

Harmful or fatal if swallowed. May cause dizziness, headache, drowsiness, nausea, weakness, loss of coordination, irritation to mouth, throat and stomach, vomiting, gastrointestinal irritation, diarrhea, loss of appetite, pain and discomfort, cough and hoarseness, salivation, changes in white blood cells, burning sensation in mouth and stomach, unconsciousness and coma. Ingestion of significant quantities may result in red blood cell hemolysis. Liquid aspirated into lungs can cause chemical pneumonitis, which can be fatal.

CHRONIC EXPOSURE EFFECTS:

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. Prolonged skin contact may result in absorption of a harmful amount of this material. Prolonged or repeated contact may cause dermatitis. May cause dizziness, headaches, weakness, eye irritation, drying and cracking of the skin, dermatitis, fatigue, nausea, numbness in the hands and feet, permanent central nervous system changes, some loss of memory, liver and kidney damage, blood disorders, thyroid effects, enlarged liver, and irritation to the respiratory tract. Prolonged or repeated contact may cause skin irritation, even

MATERIAL SAFETY DATA SHEET

Bulldog Aerosol Adhesion Promoter

Page: 3

Printed: 09/24/2014

Revision: 08/20/2014

Supersedes Revision: 02/28/2008

a burn. Prolonged exposure may cause slight swelling of the conjunctiva, blurring of vision may occur.

Prolonged skin contact may cause mild to moderate redness and swelling.

Signs and Symptoms Of Exposure

Primary Routes of Exposure: Inhalation, Skin Contact

Medical Conditions Generally Aggravated By Exposure

Diseases of the skin, liver, kidneys, cardiovascular system, and central nervous system.

OSHA Regulatory Status:

This material is classified as hazardous under OSHA regulations.

4. FIRST AID MEASURES

Emergency and First Aid Procedures

INHALATION:

If user experiences breathing difficulty, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SKIN CONTACT:

Wash with soap and water. Get medical attention if irritation develops or persists.

EYE CONTACT:

Immediately flush eyes with water for at least 15 minutes. Remove contact lenses if worn. Seek medical attention.

INGESTION:

If swallowed, do NOT induce vomiting. Call a physician, hospital emergency room, or poison control center immediately. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flammability Classification: LEVEL 3 AEROSOL

Flash Pt: 42.00 F Method Used: Setaflash Closed Cup (Rapid Setaflash)

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data available.

Fire Fighting Instructions

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flame.

Flammable Properties and Hazards

CPSC FLAMMABILITY: Flammable Aerosol

Flashpoint of dimethyl ether: -42 F (SCC)

Flashpoint of liquid product: 42 F (SCC)

Danger! Flammable! Keep away from heat, sparks, flame, and all other sources of ignition. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and all other sources of ignition during use and until all vapors are gone. Beware of static electricity that may be generated by synthetic clothing and other sources. Vapors can travel to a source of ignition and flash back.

Hazardous Combustion Products

Carbon monoxide and carbon dioxide. Irritating or toxic vapors and gases.

Extinguishing Media

Use carbon dioxide, dry powder, or foam.

Unsuitable Extinguishing Media

No data available.

6. ACCIDENTAL RELEASE MEASURES

Steps To Be Taken In Case Material Is Released Or Spilled

Clean up: Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flares, smoking or flames out of hazard area. Use non-sparking tools. Use proper bonding and grounding methods for all equipment and processes. Keep out of waterways and bodies of water. Be cautious of vapors collecting in small enclosed spaces, sewers, low lying areas, confined spaces, etc.

Small spills: Take up with sand, earth or other noncombustible absorbent material and place in a container where applicable.

Large spills: Dike far ahead of spill for later disposal.

Waste Disposal: Dispose in accordance with applicable local, state and federal regulations.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container according to all regulations. Do not reuse this container.

Do not use this product near any source of heat or open flame, furnace areas, pilot lights, stoves, etc.

Do not use in small enclosed spaces, such as basements and bathrooms. Vapors can accumulate and explode if ignited.

Do not spread this product over large surface areas because fire and health safety risks will increase dramatically.

Precautions To Be Taken in Storing

Store in a cool dry place. Avoid extreme high or low temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Equipment (Specify Type)

For use in areas with inadequate ventilation or fresh air, wear a properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors.

For OSHA controlled work places and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding the appropriate TLV.

A dust mask does not provide protection against vapors.

MATERIAL SAFETY DATA SHEET

Bulldog Aerosol Adhesion Promoter

Page: 5

Printed: 09/24/2014

Revision: 08/20/2014

Supersedes Revision: 02/28/2008

Eye Protection

A faceshield or chemical splash goggles should be worn to prevent eye contact.

Protective Gloves

Wear gloves with as much resistance to the chemical ingredients as possible. Glove materials such as nitrile rubber may provide protection. Glove selection should be based on chemicals being used and conditions of use. Consult your glove supplier for additional information. Gloves contaminated with product should be discarded and not reused.

Other Protective Clothing

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure.

Engineering Controls (Ventilation etc.)

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Use only with adequate ventilation to prevent buildup of vapors. Do not use in areas where vapors can accumulate and concentrate, such as basements, bathrooms or small enclosed areas. Whenever possible, use outdoors in an open air area. If using indoors open all windows and doors and maintain a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea or eye-watering -- STOP -- ventilation is inadequate. Leave area immediately and move to fresh air.

Work/Hygienic/Maintenance Practices

Wash hands thoroughly after use and before eating, drinking, smoking, or using the restroom.

Do not eat, drink, or smoke in the work area.

Discard any clothing or other protective equipment that cannot be decontaminated.

Facilities storing or handling this material should be equipped with an emergency eyewash and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States:	[X] Gas [X] Liquid [] Solid
Melting Point:	No data.
Boiling Point:	No data.
Autoignition Pt:	No data.
Flash Pt:	42.00 F Method Used: Setaflash Closed Cup (Rapid Setaflash)
Specific Gravity (Water = 1):	0.895 - 0.905
Density:	7.49 LB/GL
Vapor Pressure (vs. Air or mm Hg):	<=31 MM HG at 20.0 C
Vapor Density (vs. Air = 1):	> 1
Evaporation Rate:	~ 1
Solubility in Water:	No data.
Percent Volatile:	90.4 % by weight.

Appearance and Odor

Hazy, Light Yellow

10. STABILITY AND REACTIVITY

Stability: Unstable [] Stable [X]

Conditions To Avoid - Instability

No data available.

Incompatibility - Materials To Avoid

Incompatible with strong oxidizing agents, strong caustics, acids, strong bases, hydrogen peroxide, nitric acid, nitrates, sulfuric acid, amines, chemically active metals, salts, aldehydes, ammonia, and halogens.

Hazardous Decomposition Or Byproducts

Thermal decomposition may produce carbon monoxide, carbon dioxide, acrylic monomers, acrid smoke and fumes.

Hazardous Polymerization: Will occur [] Will not occur [X]

Conditions To Avoid - Hazardous Polymerization

No data available.

11. TOXICOLOGICAL INFORMATION

Toxicological Information

CAS# 108-88-3:

Reproductive Effects:, TCLo, Inhalation, Rat, 800.0 MG/M3, 6 H, female 14-20 day(s) after conception.

Result:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Effects on Newborn: Behavioral.

- Brazilian Journal of Medical and Biological Research., Vol/p/yr: 23,533, 1990

Standard Draize Test, Skin, Species: Rabbit, 20.00 MG, 24 H, Moderate.

Result:

Cardiac: Pulse rate decreased with fall in BP.

Lungs, Thorax, or Respiration: Other changes.

- Prehled Prumyslove Toxikologie, Marhold, J., Organicke Latky, Prague Czechoslovakia, Vol/p/yr: -,29, 1986

Standard Draize Test, Eyes, Species: Rabbit, 2.000 MG, 24 H, Severe.

Result:

Effects on Embryo or Fetus: Other effects to embryo.

Specific Developmental Abnormalities: Eye, ear.

- Prehled Prumyslove Toxikologie, Marhold, J., Organicke Latky, Prague Czechoslovakia, Vol/p/yr: -,29, 1986

CAS# 100-41-4:

Tumorigenic Effects:, TCLo, Inhalation, Rat, 750.0 ppm.

Result:

Tumorigenic: Carcinogenic by RTECS criteria.

Kidney, Ureter, Bladder: Tumors.

Chronic Toxicological Effects

No data available.

Carcinogenicity/Other Information

-Ethyl Benzene (CAS 100-41-4) is on the IARC list as a Group 2B: Possibly Carcinogenic to Humans.

-Styrene (CAS 100-42-5) is on the IARC list as a Group 2B: Possibly Carcinogenic to Humans.

-Toluene (CAS 108-88-3) is on the IARC list as a Group 3: Not Classifiable as to Carcinogenicity in Humans.

MATERIAL SAFETY DATA SHEET

Bulldog Aerosol Adhesion Promoter

Page: 7

Printed: 09/24/2014

Revision: 08/20/2014

Supersedes Revision: 02/28/2008

Hazardous Components (Chemical Name)	CAS #	NTP	IARC	ACGIH	OSHA
1. Toluene {Benzene, Methyl-; Toluol}	108-88-3	n.a.	3	A4	n.a.
2. Styrene {Phenylethylene; Vinyl benzene; Styrol}	100-42-5	Possible	2B	A4	n.a.
3. m-Xylene {Benzene, m-Dimethyl-}	108-38-3	n.a.	n.a.	A4	n.a.
4. o-Xylene {Benzene, o-Dimethyl-}	95-47-6	n.a.	n.a.	A4	n.a.
5. p-Xylene {Benzene, p-Dimethyl-}	106-42-3	n.a.	n.a.	A4	n.a.
6. Ethylbenzene {Ethylbenzol; Phenylethane}	100-41-4	n.a.	2B	A3	n.a.
7. Divinyl benzene (Benzene, Diethenyl-)	1321-74-0	n.a.	n.a.	n.a.	n.a.
8. Methyl ethyl ketone {MEK; 2-Butanone}	78-93-3	n.a.	n.a.	n.a.	n.a.
9. Butyl acetate {n-Butyl acetate. Acetic acid, Butyl ester}	123-86-4	n.a.	n.a.	n.a.	n.a.
10. Ethylene glycol monobutyl ether acetate {(a glycol ether)}	112-07-2	n.a.	n.a.	A3	n.a.
11. Ethyl methacrylate {2-Propenoic acie, 2-methyl-, ethyl ester}	97-63-2	n.a.	n.a.	n.a.	n.a.
12. Methyl ether {Dimethyl ether}	115-10-6	n.a.	n.a.	n.a.	n.a.

12. ECOLOGICAL INFORMATION

General Ecological Information

No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of in accordance with all applicable local, state, and federal regulations.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name

UN1950, AEROSOLS, flammable, 2.1, LTD QTY

DOT Hazard Class: 2.1

DOT Hazard Label: FLAMMABLE GAS

UN/NA Number: 1950

AIR TRANSPORT (ICAO/IATA)

ICAO/IATA Shipping Name UN1950, AEROSOLS, flammable, 2.1, LTD QTY

UN Number: 1950

Hazard Class: 2.1 - FLAMMABLE GAS

MARINE TRANSPORT (IMDG/IMO)

IMDG/IMO Shipping Name UN1950, AEROSOLS, flammable, 2.1, LTD QTY

UN Number: 1950

Hazard Class: 2.1 - FLAMMABLE GAS

Marine Pollutant: No

Additional Transport Information

For D.O.T. information, contact W.M. Barr Technical Services at 1-800-398-3892.

15. REGULATORY INFORMATION

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Toluene {Benzene, Methyl-; Toluol}	108-88-3	No	Yes 1000 LB	Yes	Yes

MATERIAL SAFETY DATA SHEET

Bulldog Aerosol Adhesion Promoter

Page: 8
 Printed: 09/24/2014
 Revision: 08/20/2014
 Supersedes Revision: 02/28/2008

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
2. Styrene {Phenylethylene; Vinyl benzene; Styrol}	100-42-5	No	Yes 1000 LB	Yes	Yes
3. m-Xylene {Benzene, m-Dimethyl-}	108-38-3	No	Yes 1000 LB	Yes	No
4. o-Xylene {Benzene, o-Dimethyl-}	95-47-6	No	Yes 1000 LB	Yes	No
5. p-Xylene {Benzene, p-Dimethyl-}	106-42-3	No	Yes 100 LB	Yes	Yes
6. Ethylbenzene {Ethylbenzol; Phenylethane}	100-41-4	No	Yes 1000 LB	Yes	Yes
7. Divinyl benzene (Benzene, Diethenyl-)	1321-74-0	No	No	No	No
8. Methyl ethyl ketone {MEK; 2-Butanone}	78-93-3	No	Yes 5000 LB	No	Yes
9. Butyl acetate {n-Butyl acetate. Acetic acid, Butyl ester}	123-86-4	No	Yes 5000 LB	No	No
10. Ethylene glycol monobutyl ether acetate {(a glycol ether)}	112-07-2	No	No	Yes-Cat. N230	No
11. Ethyl methacrylate {2-Propenoic acie, 2-methyl-, ethyl ester}	97-63-2	No	Yes 1000 LB	No	No
12. Methyl ether {Dimethyl ether}	115-10-6	No	No	No	No

Other US EPA or State Lists

Hazardous Components (Chemical Name)	CAS #	CAA HAP,ODC	CWA NPDES	TSCA	CA PROP.65
1. Toluene {Benzene, Methyl-; Toluol}	108-88-3	HAP	Yes	Inventory, 8A CAIR	Yes
2. Styrene {Phenylethylene; Vinyl benzene; Styrol}	100-42-5	HAP	Yes	Inventory, 8A CAIR	No
3. m-Xylene {Benzene, m-Dimethyl-}	108-38-3	HAP	No	Inventory	No
4. o-Xylene {Benzene, o-Dimethyl-}	95-47-6	HAP	No	Inventory	No
5. p-Xylene {Benzene, p-Dimethyl-}	106-42-3	HAP	No	Inventory, 4 Test, 8A PAIR	No
6. Ethylbenzene {Ethylbenzol; Phenylethane}	100-41-4	HAP	Yes	Inventory, 4 Test	Yes
7. Divinyl benzene (Benzene, Diethenyl-)	1321-74-0	No	No	Inventory	No
8. Methyl ethyl ketone {MEK; 2-Butanone}	78-93-3	No	No	Inventory	No
9. Butyl acetate {n-Butyl acetate. Acetic acid, Butyl ester}	123-86-4	No	Yes	Inventory, 4 Test	No
10. Ethylene glycol monobutyl ether acetate {(a glycol ether)}	112-07-2	HAP	No	Inventory	No
11. Ethyl methacrylate {2-Propenoic acie, 2-methyl-, ethyl ester}	97-63-2	No	No	Inventory, 4 Test	No
12. Methyl ether {Dimethyl ether}	115-10-6	No	No	Inventory	No

EPA Hazard Categories:

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

- Yes No Acute (immediate) Health Hazard
- Yes No Chronic (delayed) Health Hazard
- Yes No Fire Hazard
- Yes No Sudden Release of Pressure Hazard
- Yes No Reactive Hazard

16. OTHER INFORMATION

Company Policy or Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.