



Bruce Hardwood & Laminate Floor Cleaner

S-302

MSDS Preparation Date (dd/mm/yyyy): 01/06/2009

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MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product identifier : **Bruce Hardwood & Laminate Floor Cleaner**
Product Use : Alcohol based, floor cleaner.
Chemical Family : Mixture.
Manufacturer part no. : S-302
Supplier's name and address:
Armstrong World Industries, Inc.
 2500 Columbia Ave.
 Lancaster, PA, U.S.A.
 17603
24 Hr. Emergency Tel # : 800-255-3924 (CHEM-TEL)
Manufacturer's name and address:
 Refer to Supplier

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>Wt.%</u>	<u>LC₅₀(4hr)</u> <u>(Rat, ihl.)</u>	<u>LD₅₀</u>	
				<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Isopropyl alcohol	67-63-0	<4.0%	17,000 ppm	4720 mg/kg	12,890 mg/kg
2-butoxyethanol	111-76-2	0.50 - 1.50	450 ppm	470 mg/kg	400 mg/kg

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Opaque blue liquid. Lemon odour.
 Warning! Combustible liquid and vapour. Harmful if inhaled or swallowed. Harmful if absorbed through the skin.
 May cause nausea, vomiting, headache and other central nervous system effects.
 May cause respiratory irritation. Causes skin and eye irritation.
 Possible birth defect hazard - contains material that may cause birth defects, based on animal data.

*****POTENTIAL HEALTH EFFECTS*****

Target organs : Eyes, skin, respiratory system, digestive system, central nervous system, blood system.
Routes of exposure : *Inhalation:* YES *Skin Absorption:* YES *Skin & Eyes:* YES *Ingestion:* YES
Signs and symptoms of short-term (acute) exposure

Inhalation : May cause irritation to the nose, throat and upper respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Inhalation in very high concentrations may result in blood system effects, such as red blood cell fragility.
Skin : May cause mild to moderate skin irritation. Prolonged contact, such as when trapped against the skin under clothing or jewelry, may be more irritating. May be absorbed and cause symptoms similar to those for inhalation.
Eyes : May cause moderate to severe irritation.
Ingestion : May cause irritation of mouth, throat, and stomach. Ingestion may cause symptoms similar to inhalation.

Potential chronic health effects

: Prolonged or repeated skin contact may cause irritation, defatting or dermatitis (rash). This product contains: 2-butoxyethanol. 2-Butoxyethanol has been reported to cause blood disorders resulting in kidney, liver, and spleen damage to laboratory animals in long-range studies. Humans are less sensitive to these effects.

Other important hazards : May cause birth defects. See TOXICOLOGICAL INFORMATION, Section 11.



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SECTION 4 - FIRST AID MEASURES

- Inhalation** : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get medical attention.
- Skin contact** : Remove/Take off immediately all contaminated clothing. In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Get medical attention. Wash contaminated clothing before re-use.
- Eye contact** : Immediately flush eyes with running water for at least 15 minutes. Seek immediate medical attention/advice.
- Ingestion** : Do not induce vomiting. Have victim rinse mouth with water, then give one to two glasses of water to drink. Get medical attention. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

- : Combustible liquid and vapour. This material may be ignited by heat, sparks and direct flame. Vapours are heavier than air and collect in confined and low-lying areas. Vapour can travel considerable distance and flashback to a source of ignition. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

- Flash point** : 86°C
- Flash point Method** : Tag closed cup **Auto-ignition temperature** : N/Av
- Lower flammable limit (% by vol.)** : N/Av **Upper flammable limit (% by vol.)** : N/Av
- Oxidizing properties** : None known.
- Flame Projection Length** : N/Av **Flashback observed** : N/Av

Explosion data: Sensitivity to mechanical impact / static discharge

- : Not expected to be sensitive to mechanical impact or static discharge.

- Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special fire-fighting procedures/equipment

- : Firefighters should wear proper protective equipment and self contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

Hazardous combustion products

- : Carbon oxides, unburned alcohol and other irritating fumes and smoke.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions** : All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up.
- Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.
- Spill response/cleanup** : Ventilate area of release. Remove all sources of ignition. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate authorities as required.
- Prohibited materials** : None known.

SECTION 7 - HANDLING AND STORAGE



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- Safe Handling procedures** : Use in a well ventilated area. Wear suitable protective equipment during handling. Avoid breathing vapours. Training the workers on the potential health hazards associated with product vapor, dust or fume is important. Secondary inhalation exposures could occur when cleaning equipment, or when removing or laundering the clothing. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and flame. Avoid contact with incompatible materials. Wash thoroughly after handling.
- Storage requirements** : Store in a cool, dry, well-ventilated area. Keep away from direct sunlight. Keep away from incompatibles. Inspect periodically for damage or leaks.
- Incompatible materials** : Strong oxidizing agents; Acids.
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

<u>Ingredients</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Isopropyl alcohol	200 ppm	400 ppm	400 ppm	N/Av
2-butoxyethanol	20 ppm	N/Av	50 ppm (skin)	N/Av

- Ventilation and engineering measures** : Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.
- Respiratory protection** : If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised.
- Skin protection** : Gloves impervious to the material are recommended. Advice should be sought from glove suppliers.
- Eye / face protection** : Chemical splash goggles are recommended.
- Other protective equipment** : Depending on conditions of use, an impervious apron should be worn. An eyewash station and safety shower should be made available in the immediate working area.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Physical state** : Liquid. **Appearance** : Opaque blue liquid.
- Odour** : Lemon odour. **Odour threshold** : N/Av
- pH** : 7.8
- Boiling point** : N/Av **Specific gravity** : 1.0
- Melting/Freezing point** : N/Av **Coefficient of water/oil distribution** : N/Av
- Vapour pressure (mmHg @ 20° C / 68° F)** : N/Av **Solubility in water** : soluble
- Vapour density (Air = 1)** : Heavier than air. **Evaporation rate (n-Butyl acetate = 1)** : same as water
- Volatile organic Compounds (VOC's)** : N/Av **Volatiles (% by weight)** : 8%
- Absolute pressure of container** : N/Av **Viscosity** : N/Av

SECTION 10 - REACTIVITY AND STABILITY DATA

- Stability and reactivity** : Stable under the recommended storage and handling conditions prescribed. Hazardous polymerisation does not occur.

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Conditions to avoid : Avoid heat and open flame. Keep away from direct sunlight. Do not use in areas without adequate ventilation.

Materials To Avoid And Incompatibility : See Section 7 (Handling and Storage) section for further details.

Hazardous decomposition products : None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicological data : There is no available data for the product itself, only for the ingredients. See Section 2.

Carcinogenic status : Contains 2-Butoxyethanol. 2-Butoxyethanol is classified as a confirmed animal carcinogen by ACGIH (Group A3).

Reproductive effects : None known.

Teratogenicity : This product contains Isopropanol. Animal evidence suggests Isopropanol may be fetotoxic at doses that are not maternally toxic.

Mutagenicity : None known.

Sensitization to material : None known.

Synergistic materials : None known.

Medical conditions aggravated by overexposure : Pre-existing eye, skin, respiratory, liver, kidney and central nervous system disorders. Blood disorders.

Additional Health Hazards : CNS depression may result from extreme exposures.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental effects : The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. No data is available on the product itself.

Important environmental characteristics : No data is available on the product itself.

Ecotoxicological : No data is available on the product itself.

SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for Disposal : Handle waste according to recommendations in Section 7.

Methods of Disposal : Dispose of in accordance with federal, provincial and local hazardous waste laws.

SECTION 14 - TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	none	Not regulated.	not regulated	none	
TDG Additional information	None.				

SECTION 15 - REGULATORY INFORMATION

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

Canadian WHMIS Classification:
 Class B3 (Combustible Liquids);
 Class D2A (Materials Causing Other Toxic Effects, Very Toxic Material);
 Class D2B (Materials Causing Other Toxic Effects, Toxic Material).

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This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.



SECTION 16 - OTHER INFORMATION

Legend

- : ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstract Services
- IARC: International Agency for Research on Cancer
- Inh: Inhalation
- N/Av: not applicable
- N/Av: not available
- NIOSH: National Institute of Occupational Safety and Health
- OSHA: Occupational Safety and Health Administration
- PEL: Permissible exposure limit
- RTECS: Registry of Toxic Effects of Chemical Substances
- STEL: Short Term Exposure Limit
- TDG: Canadian Transportation of Dangerous Goods Act & Regulations
- TLV: Threshold Limit Values
- TWA: Time Weighted Average
- TSCA: Toxic Substance Control Act
- WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2007.
- 2. International Agency for Research on Cancer Monographs, searched 2007.
- 3. Canadian Centre for Occupational Health and Safety, CInfoWeb databases, 2007 (Chempendium, HSDB and RTECs).
- 4. Material Safety Data Sheets from manufacturer.

<p><u>Prepared for:</u> Armstrong World Industries, Inc. 2500 Columbia Ave. Lancaster, PA, U.S.A., 17603 Telephone: 717-396-2328 Please direct all enquiries to Armstrong World Industries.</p>	
<p><u>Prepared by:</u> ICC The Compliance Center Inc. Canada: 1-888-977-4834 USA: 1-888-442-9628 http://www.thecompliancecenter.com</p>	 <p>HAZARDOUS - MATERIALS REGULATIONS SPECIALISTS</p>

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