



## SAFETY DATA SHEET

### Armor All® Shield Brake Dust Repellent for Wheels

According to Regulation (EC) No 1907/2006, Annex II, as amended.

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

**Product name** Armor All® Shield Brake Dust Repellent for Wheels  
**Product number** AA16300

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** Automotive wheel protectant.  
**Uses advised against** No specific uses advised against are identified.

##### 1.3. Details of the supplier of the safety data sheet

**Supplier** Armored Auto UK Ltd  
 Unit 16, Rassau Industrial Estate  
 Ebbw Vale  
 Gwent NP23 5SD  
 UK  
 Tel: +44 1495 350234  
 Fax: + 44 1495 350431  
 euregulatory@eu.spectrumbrands.com

##### 1.4. Emergency telephone number

**Emergency telephone** +44 1495 350234  
 Monday - Thursday: 0830 - 1700  
 Friday: 0830 - 1530

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

**Physical hazards** Aerosol 1 - H222, H229  
**Health hazards** Not Classified  
**Environmental hazards** Not Classified

**Physicochemical** Containers can burst violently or explode when heated, due to excessive pressure build-up. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited.

##### 2.2. Label elements

###### Pictogram



**Signal word** Danger

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<b>Hazard statements</b>	H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated
<b>Precautionary statements</b>	P102 Keep out of reach of children. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>Petroleum gases, liquefied, sweetened</b> CAS number: 68476-86-8                      EC number: 270-705-8 Substance with National workplace exposure limits.	<b>25 - &lt;50%</b>
<b>Classification</b> Flam. Gas 1 - H220 Press. Gas, Liquefied - H280	
<b>1,3-butadiene</b> CAS number: 106-99-0                      EC number: 203-450-8	<b>&lt;0.025%</b>
<b>Classification</b> Flam. Gas 1 - H220 Press. Gas, Liquefied - H280 Muta. 1B - H340 Carc. 1A - H350	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General information</b>	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist after washing.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms are severe or persist after washing.

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### 4.2. Most important symptoms and effects, both acute and delayed

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Spray/mists may cause respiratory tract irritation.
<b>Ingestion</b>	Due to the physical nature of this product, exposure by this route is unlikely.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking.
<b>Eye contact</b>	May be slightly irritating to eyes. May cause discomfort.

### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	Treat symptomatically. Keep affected person under observation.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Vapours may form explosive mixtures with air.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapours.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Use water to keep fire exposed containers cool and disperse vapours.
<b>Special protective equipment for firefighters</b>	Use protective equipment appropriate for surrounding materials. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Wear protective clothing as described in Section 8 of this safety data sheet. Evacuate area. No smoking, sparks, flames or other sources of ignition near spillage. Risk of explosion.
<b>For non-emergency personnel</b>	No action shall be taken without appropriate training or involving any personal risk.

### 6.2. Environmental precautions

<b>Environmental precautions</b>	Avoid discharge into drains or watercourses or onto the ground.
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### 6.3. Methods and material for containment and cleaning up

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**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Eliminate all ignition sources if safe to do so. Do not touch or walk into spilled material. Ventilate closed spaces before entering them. Use only non-sparking tools. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

### 6.4. Reference to other sections

**Reference to other sections** See Section 11 for additional information on health hazards. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Provide adequate ventilation. Ground/bond container and receiving equipment. Keep away from heat, sparks and open flame.

**Advice on general occupational hygiene** Avoid contact with eyes and prolonged skin contact. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using this product.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in a cool and well-ventilated place. Keep away from heat, sparks and open flame. Take precautionary measures against static discharges.

**Storage class** Flammable compressed gas storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Petroleum gases, liquefied, sweetened

Long-term exposure limit (8-hour TWA): WEL 600 ppm 1450 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 750 ppm 1810 mg/m<sup>3</sup>

##### 1,3-butadiene

Long-term exposure limit (8-hour TWA): WEL 10 ppm 22 mg/m<sup>3</sup>

Carc

WEL = Workplace Exposure Limit

Carc = Capable of causing cancer and/or heritable genetic damage.

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. All handling should only take place in well-ventilated areas. Avoid inhalation of vapours and spray/mists. Use explosion-proof electrical, ventilating and lighting equipment.

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<b>Eye/face protection</b>	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Wear tight-fitting, chemical splash goggles or face shield.
<b>Hand protection</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Frequent changes are recommended.
<b>Other skin and body protection</b>	Wear appropriate clothing to prevent repeated or prolonged skin contact.
<b>Hygiene measures</b>	Do not smoke in work area. Wash promptly with soap and water if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.
<b>Respiratory protection</b>	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Aerosol.
<b>Colour</b>	Colourless.
<b>Odour</b>	Solvent.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	Not determined.
<b>Melting point</b>	Not relevant.
<b>Initial boiling point and range</b>	Not relevant.
<b>Evaporation rate</b>	Not determined.
<b>Evaporation factor</b>	Not determined.
<b>Flammability (solid, gas)</b>	Not determined.
<b>Upper/lower flammability or explosive limits</b>	Not determined.
<b>Vapour pressure</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Relative density</b>	0.957 @ 22.8°C Liquid.
<b>Bulk density</b>	787 kg/m <sup>3</sup>
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not relevant.
<b>Decomposition Temperature</b>	Not relevant.
<b>Viscosity</b>	~ 1 cP @ 20°C Liquid.

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<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

### 9.2. Other information

<b>Other information</b>	No information required.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	Will not polymerise.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid exposing aerosol containers to high temperatures or direct sunlight. Avoid heat, flames and other sources of ignition. Avoid the accumulation of vapours in low or confined areas. Pressurised container: may burst if heated
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	No specific material or group of materials is likely to react with the product to produce a hazardous situation.
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### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Does not decompose when used and stored as recommended. Decomposition at ambient temperatures may generate the following substances: Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). Acrid smoke or fumes.
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

<b>Notes (oral LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Acute toxicity - dermal

<b>Notes (dermal LD<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Acute toxicity - inhalation

<b>Notes (inhalation LC<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
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#### Skin corrosion/irritation

<b>Skin corrosion/irritation</b>	Based on available data the classification criteria are not met.
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#### Serious eye damage/irritation

<b>Serious eye damage/irritation</b>	Based on available data the classification criteria are not met.
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#### Respiratory sensitisation

<b>Respiratory sensitisation</b>	Based on available data the classification criteria are not met.
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#### Skin sensitisation

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<b>Skin sensitisation</b>	Based on available data the classification criteria are not met.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b>Genotoxicity - in vivo</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	Based on available data the classification criteria are not met.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Not anticipated to present an aspiration hazard, based on chemical structure.
<b><u>Toxicological information on ingredients.</u></b>	

### Petroleum gases, liquefied, sweetened

<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Chromosome aberration: Negative. REACH dossier information.
<b>Genotoxicity - in vivo</b>	Chromosome aberration: Negative. REACH dossier information.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Screening - NOAEC 10000 ppm, Inhalation, Rat P, F1 REACH dossier information.
<b>Reproductive toxicity - development</b>	Developmental toxicity: - NOAEC: 10426 ppm, Inhalation, Rat REACH dossier information.

### 1,3-butadiene

<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Gene mutation: Positive. REACH dossier information. Muta. 1B - H340
<b>Genotoxicity - in vivo</b>	Chromosome aberration: Positive. REACH dossier information.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Known carcinogen based on animal evidence.
<b>IARC carcinogenicity</b>	IARC Group 1 Carcinogenic to humans.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Screening - NOAEC 6000 ppm, Inhalation, Rat P REACH dossier information.
<b>Reproductive toxicity - development</b>	Developmental toxicity: - NOEC: 1000 ppm, Inhalation, Rat REACH dossier information.
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	NOAEC 6.25 ppm, Inhalation, Mouse REACH dossier information.

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### SECTION 12: Ecological Information

#### 12.1. Toxicity

**Toxicity** Not considered toxic to fish. However, large or frequent spills may have hazardous effects on the environment.

#### Ecological information on ingredients.

##### Petroleum gases, liquefied, sweetened

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 147.54 hours: 27.98 mg/l, Algae REACH dossier information. QSAR
<b>Acute toxicity - aquatic invertebrates</b>	LC <sub>50</sub> , 16.33 hours: 14.22 mg/l, Daphnia sp. REACH dossier information. QSAR
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 11.89 hours: 7.71 mg/l, Fish REACH dossier information. QSAR

##### 1,3-butadiene

<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 45 mg/l, Pimephales promelas (Fat-head Minnow) REACH dossier information. QSAR
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: 33 mg/l, Daphnia magna REACH dossier information. QSAR
<b>Acute toxicity - aquatic plants</b>	EC <sub>50</sub> , 72 hours: 33 mg/l, Freshwater algae REACH dossier information. QSAR

#### 12.2. Persistence and degradability

**Persistence and degradability** No data available.

#### Ecological information on ingredients.

##### Petroleum gases, liquefied, sweetened

<b>Phototransformation</b>	Water - DT <sub>50</sub> : 1906 days REACH dossier information.
<b>Biodegradation</b>	Water - Degradation (100%): 385.5 hours REACH dossier information. The substance is readily biodegradable.

##### 1,3-butadiene

<b>Phototransformation</b>	Water - DT <sub>50</sub> : 0.24 days REACH dossier information. Estimated value.
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#### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.



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**Partition coefficient** Not determined.

### Ecological information on ingredients.

#### Petroleum gases, liquefied, sweetened

**Partition coefficient** log Pow: 2.3058 REACH dossier information. QSAR

#### 1,3-butadiene

**Partition coefficient** log Pow: 1.99 REACH dossier information.

### 12.4. Mobility in soil

**Mobility** The product has poor water-solubility.

### Ecological information on ingredients.

#### 1,3-butadiene

**Henry's law constant** 7900 Pa m<sup>3</sup>/mol @ 25°C REACH dossier information. QSAR

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

**Other adverse effects** Not determined.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Dispose of waste product or used containers in accordance with local regulations Do not puncture or incinerate, even when empty.

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (ADR/RID)** 1950

**UN No. (IMDG)** 1950

**UN No. (ICAO)** 1950

**UN No. (ADN)** 1950

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** AEROSOLS

**Proper shipping name (IMDG)** AEROSOLS

**Proper shipping name (ICAO)** AEROSOLS

**Proper shipping name (ADN)** AEROSOLS

### 14.3. Transport hazard class(es)

**ADR/RID class** 2.1

**ADR/RID classification code** 5F

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ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1
ADN class	2.1

### Transport labels



### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

#### Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

EmS	F-D, S-U
ADR transport category	2
Tunnel restriction code	(D)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78  
and the IBC Code

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

<b>National regulations</b>	EH40/2005 Workplace exposure limits.
<b>EU legislation</b>	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. Council Directive of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC) (as amended).

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

## Armor All® Shield Brake Dust Repellent for Wheels

<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>IATA: International Air Transport Association.</p> <p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>DNEL: Derived No Effect Level.</p> <p>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</p> <p>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p> <p>BCF: Bioconcentration Factor.</p>
<b>Classification procedures according to Regulation (EC) 1272/2008</b>	Aerosol 1 - H222, H229: Expert judgement.
<b>Revision comments</b>	Product name change.
<b>Revision date</b>	20/04/2017
<b>Revision</b>	6
<b>Supersedes date</b>	10/09/2015
<b>SDS number</b>	401
<b>Hazard statements in full</b>	<p>H220 Extremely flammable gas.</p> <p>H222 Extremely flammable aerosol.</p> <p>H229 Pressurised container: may burst if heated</p> <p>H280 Contains gas under pressure; may explode if heated.</p> <p>H340 May cause genetic defects.</p> <p>H350 May cause cancer.</p>

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