

SAFETY DATA SHEET  
CONTRAST

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

**1.1. Product identifier**

Product name                      CONTRAST

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

Identified uses                      Non-destructive testing spray

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

Supplier                              Aztec Chemicals  
Unit 16, University Way  
Orion Park  
Crewe  
Cheshire  
CW1 6NG  
+ 44 (0) 1270 655500 (T)  
+ 44 (0) 1270 655501 (F)  
info@aztecchemicals.com

**1.4. Emergency telephone number**

+44 (0)7831 300868

## SECTION 2: HAZARDS IDENTIFICATION

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

Classification (1999/45/EEC)      Xi;R36. F+;R12. R66, R67.

**Human health**

Gas or vapour is harmful on prolonged exposure or in high concentrations. In high concentrations, vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Deliberately concentrating and inhaling the contents of this container is dangerous and can be fatal.

**Environment**

This product contains substances which are very toxic or toxic to aquatic organisms and may cause long term effects to the aquatic environment (see sections 2 and 12)

**Physical and Chemical Hazards**

Aerosol containers can explode when heated, due to excessive pressure build-up. The product is extremely flammable, and explosive vapour/air mixtures may be formed even at normal room temperatures. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited.

**2.2. Label elements****Labelling**

Irritant



Extremely flammable

**Risk Phrases**

R12	Extremely flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

**Safety Phrases**

A1	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
A2	Do not spray on a naked flame or any incandescent material.
S2	Keep out of the reach of children.
S16	Keep away from sources of ignition - No smoking.
S23	Do not breathe vapour/spray.
S25	Avoid contact with eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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Wear suitable gloves.

**2.3. Other hazards****SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures**

<b>ACETONE</b>			<b>30-60%</b>
<b>CAS-No.: 67-64-1</b>	<b>EC No.: 200-662-2</b>	<b>Registration Number: 01-2119471330-49</b>	
Classification (EC 1272/2008) Flam. Liq. 2 - H225 EUH066 Eye Irrit. 2 - H319 STOT SE 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R66 R67		
<b>BUTAN-2-OL</b>			<b>&lt; 1</b>
<b>CAS-No.: 78-92-2</b>	<b>EC No.: 201-158-5</b>	<b>Registration Number: 01-2119475146-36</b>	
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Eye Irrit. 2 - H319 STOT SE 3 - H335 STOT SE 3 - H336	Classification (67/548/EEC) R10 Xi;R36/37 R67		
<b>BUTANE</b>			<b>5-10%</b>
<b>CAS-No.: 106-97-8</b>	<b>EC No.: 203-448-7</b>	<b>Registration Number: Exempt under REACH</b>	
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12		
<b>ISOBUTANE</b>			<b>1-5%</b>
<b>CAS-No.: 75-28-5</b>	<b>EC No.: 200-857-2</b>	<b>Registration Number: Exempt under REACH</b>	
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12		
<b>PROPANE</b>			<b>10-30%</b>
<b>CAS-No.: 74-98-6</b>	<b>EC No.: 200-827-9</b>	<b>Registration Number: Exempt under REACH</b>	
Classification (EC 1272/2008) Flam. Gas 1 - H220	Classification (67/548/EEC) F+;R12		
<b>TOLUENE</b>			<b>&lt; 1</b>
<b>CAS-No.: 108-88-3</b>	<b>EC No.: 203-625-9</b>	<b>Registration Number: 01-2119471310-51</b>	

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Classification (EC 1272/2008)  
 Flam. Liq. 2 - H225  
 Skin Irrit. 2 - H315  
 Repr. 2 - H361d  
 STOT SE 3 - H336  
 STOT RE 2 - H373  
 Asp. Tox. 1 - H304

Classification (67/548/EEC)  
 F;R11 Repr.Cat.3;R63  
 Xn;R48/20,R65  
 Xi;R38  
 R67

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****General information**

Move the exposed person to fresh air at once.

**Inhalation**

In case of inhalation of spray mist: Move person into fresh air and keep at rest. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

**Ingestion**

Immediately rinse mouth and provide fresh air. Do not induce vomiting. Get medical attention.

**Skin contact**

Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above.

**Eye contact**

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Continue to rinse for at least 15 minutes and get medical attention.

**4.2. Most important symptoms and effects, both acute and delayed****4.3. Indication of any immediate medical attention and special treatment needed****SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media****Extinguishing media**

Extinguish with foam, carbon dioxide, dry powder or water fog.

**5.2. Special hazards arising from the substance or mixture****Unusual Fire & Explosion Hazards**

Extremely flammable. Forms explosive mixtures with air. May travel considerable distance to source of ignition and flash back. Aerosol cans may explode in a fire.

**Specific hazards**

Aerosol containers can explode when heated, due to excessive pressure build-up.

**5.3. Advice for firefighters****Special Fire Fighting Procedures**

Water spray should be used to cool containers. Use water to keep fire exposed containers cool and disperse vapours. Warn firefighters that aerosols are involved.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. In case of inadequate ventilation, use respiratory protection. Avoid inhalation of vapours and aerosol spray.

**6.2. Environmental precautions**

Do not allow to enter drains, sewers or watercourses. Contain spillages with sand, earth or any suitable adsorbent material.

**6.3. Methods and material for containment and cleaning up**

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb spillage with non-combustible, absorbent material. Let evaporate. Keep out of confined spaces because of explosion risk.

**6.4. Reference to other sections****SECTION 7: HANDLING AND STORAGE**

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### 7.1. Precautions for safe handling

Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Do not spray on a naked flame or any incandescent material.

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

Extremely flammable. Keep away from heat, sparks and open flame. Store at moderate temperatures in dry, well ventilated area. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

### 7.3. Specific end use(s)

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
ACETONE	WEL	500 ppm	1210 mg/m <sup>3</sup>	1500 ppm	3620 mg/m <sup>3</sup>	
BUTAN-2-OL	WEL	100 ppm	308 mg/m <sup>3</sup>	150 ppm	462 mg/m <sup>3</sup>	
BUTANE	WEL	600 ppm		750 ppm		
ISOBUTANE	WEL	800 ppm		No std.		
PROPANE	SUP	ppm		ppm		
TOLUENE		50 ppm(Sk)	191 mg/m <sup>3</sup> (Sk)	100 ppm(Sk)	384 mg/m <sup>3</sup> (Sk)	

WEL = Workplace Exposure Limit.  
mg/m<sup>3</sup>(Sk)

#### Ingredient Comments

WEL = Workplace Exposure Limits

### 8.2. Exposure controls

#### Engineering measures

Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of spray.

#### Respiratory equipment

In case of inadequate ventilation use suitable respirator.

#### Hand protection

Due to the packaging form, aerosol, risk of skin contact is small. Use suitable protective gloves if risk of skin contact. Gloves of nitrile rubber, PVA or Viton are recommended. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

#### Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

#### Hygiene measures

Wash hands after handling. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Use appropriate hand lotion to prevent defatting and cracking of skin.

#### Personal protection

When using do not smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Aerosol.
Colour	White.
Odour	Organic solvents.
Flash point (°C)	<-40 °C
Auto Ignition Temperature (°C)	410-580
Flammability Limit - Lower(%)	1.8
Flammability Limit - Upper(%)	9.5
Comments	Information given concerns the major ingredient.

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## 9.2. Other information

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1. Reactivity

#### 10.2. Chemical stability

Avoid Heat, sparks, flames.

#### 10.3. Possibility of hazardous reactions

#### 10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid exposing aerosol containers to high temperatures or direct sunlight.

#### 10.5. Incompatible materials

#### 10.6. Hazardous decomposition products

In case of fire, toxic gases (CO, CO<sub>2</sub>, NO<sub>x</sub>) may be formed.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information on toxicological effects

##### **General information**

Deliberately concentrating and inhaling the contents of this container is dangerous and can be fatal.

##### **Inhalation**

In high concentrations, vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Unconsciousness, possibly death.

##### **Skin contact**

Irritating to skin.

##### **Eye contact**

Spray and vapour in the eyes may cause irritation and smarting.

##### **Health Warnings**

Arrhythmia, (deviation from normal heart beat). Irritating to skin. In high concentrations, vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

##### **Route of entry**

Inhalation.

##### **Target Organs**

Central nervous system Respiratory system, lungs

##### **Medical Symptoms**

Skin irritation. Arrhythmia, (deviation from normal heart beat). Narcotic effect. Vapours may cause drowsiness and dizziness.

### SECTION 12: ECOLOGICAL INFORMATION

#### **Ecotoxicity**

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

#### 12.1. Toxicity

#### 12.2. Persistence and degradability

#### 12.3. Bioaccumulative potential

#### 12.4. Mobility in soil

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### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

## SECTION 13: DISPOSAL CONSIDERATIONS

#### General information

Do not puncture or incinerate even when empty.

#### 13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Make sure containers are empty before discarding (explosion risk). Empty containers must not be burned because of explosion hazard.

## SECTION 14: TRANSPORT INFORMATION

#### General

This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG. These provisions allow transport of aerosols of less than 1 litre packed in cartons of less than 30kg gross weight to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities. Aerosols not so packed and labelled must show the following.

#### 14.1. UN number

UN No. (ADR/RID/ADN)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

#### 14.2. UN proper shipping name

Proper Shipping Name                      AEROSOLS

#### 14.3. Transport hazard class(es)

ADR/RID/ADN Class	Class 2.1: Flammable gases.
ADR Label No.	3
IMDG Class	2.1
ICAO Class/Division	2.1

#### Transport Labels



#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

#### 14.6. Special precautions for user

Hazard No. (ADR)	23 Flammable gas.
Tunnel Restriction Code	(D)

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

## SECTION 15: REGULATORY INFORMATION

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

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### Uk Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments. Chemicals (Hazard Information & Packaging) Regulations.

### Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health. The Aerosol Dispensers Regulations 1977 & 1999

### Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply. British Aerosol Manufacturers Code of Practice 7th. Edition 1999

### Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

### EU Legislation

Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC. System of specific information relating to Dangerous Preparations. 2001/58/EC.

### National Regulations

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689.

## 15.2. Chemical Safety Assessment

### SECTION 16: OTHER INFORMATION

**SDS No.** 10636

**Safety Data Sheet Status** Approved.

**Date** 18.03.2013

#### Risk Phrases In Full

R12	Extremely flammable.
R10	Flammable.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable
R36/37	Irritating to eyes and respiratory system.
R36	Irritating to eyes.
R38	Irritating to skin.
R63	Possible risk of harm to the unborn child.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

#### Hazard Statements In Full

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H222	Extremely flammable aerosol.
H220	Extremely flammable gas.
H226	Flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
EUH066	Repeated exposure may cause skin dryness or cracking.
H361d	Suspected of damaging the unborn child.

#### Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.