

**SAFETY DATA SHEET**  
**DYE PENETRANT****SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1. Product identifier**

Product name DYE PENETRANT

**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) F+;R12. N;R51/53.

**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)

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

Extremely flammable



Dangerous for the environment

**Risk Phrases**

R12	Extremely flammable.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**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.
S29/56	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
S51	Use only in well-ventilated areas.

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

## DYE PENETRANT

<b>BUTANE</b>		<b>10-30%</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>Hydrocarbon</b>		<b>30-60%</b>
<b>CAS-No.: 64742-47-8</b>	<b>EC No.: 265-149-8</b>	<b>Registration Number: 01-2119484819-18</b>
Classification (EC 1272/2008) Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R65. N;R51/53.	
<b>ISOBUTANE</b>		<b>5-10%</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>5-10%</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	

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 immediately.

#### 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

**DYE PENETRANT****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****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**

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

**Storage Class**

Flammable compressed gas storage.

**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
BUTANE	WEL	600 ppm		750 ppm		
ISOBUTANE	WEL	800 ppm		No std.		
PROPANE	SUP	ppm		ppm		

WEL = Workplace Exposure Limit.

**Ingredient Comments**

WEL = Workplace Exposure Limits

**8.2. Exposure controls****Engineering measures**

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

## DYE PENETRANT

### Respiratory equipment

In case of inadequate ventilation use suitable respirator.

### Hand protection

Due to the packaging form, aerosol, risk of skin contact is small. For prolonged or repeated skin contact use suitable protective gloves. 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 promptly if skin becomes contaminated. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin.

### Personal protection

Do not eat, drink or smoke when using the product.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Aerosol.
Colour	Red.
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.

### 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 are narcotic and may cause headache, fatigue, dizziness and nausea. Unconsciousness, possibly death.

#### Skin contact

Skin irritation is not anticipated when used normally. Repeated exposure may cause skin dryness or cracking.

#### Eye contact

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

## DYE PENETRANT

### Health Warnings

Arrhythmia (deviation from normal heartbeat) Narcotic effect. Solvent vapours are hazardous and may cause nausea, sickness and headaches.

### Route of entry

Inhalation.

### Target Organs

Central nervous system Respiratory system, lungs

### Medical Symptoms

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

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

This product has not been tested but contains ingredients which are toxic or very toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment. During normal use the volatility of the components and the packaging form, pressurised container, make entry into the aquatic environment unlikely, however, do not empty or discharge into drains or watercourses. Ensure container is empty before disposal to prevent contents entering watercourses.

#### 12.1. Toxicity

#### 12.2. Persistence and degradability

#### 12.3. Bioaccumulative potential

#### 12.4. Mobility in soil

#### 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.
IMDG Class	2.1
ICAO Class/Division	2.1

**DYE PENETRANT****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****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. 10638

Safety Data Sheet Status Approved.

Date 18.03.2013

**Risk Phrases In Full**

R12 Extremely flammable.

R65 Harmful: may cause lung damage if swallowed.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Hazard Statements In Full**

H222 Extremely flammable aerosol.

H220 Extremely flammable gas.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

## DYE PENETRANT

### 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.