





# JAD DEVELOPER - AEROSOL SAFETY DATA SHEET

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

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

|  |   |
|--|---|
| <b>1.1 Product identifier</b>  |   |
| Product Name   | JAD DEVELOPER – AEROSOL.  |
| CAS No.  | Mixture.  |
| EINECS No.   | Mixture.  |
| REACH Registration No.   | None assigned.  |
| <b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b> |   |
| Identified use(s)  | For use in the Dye Penetrant Inspection Process BS EN ISO 571-1:1997 (BS EN ISO 3452-2:2006 Sensitivity level 2 when used in conjunction with penetrant family products). |
| Uses advised against   | None known.   |
| <b>1.3 Details of the supplier of the Safety Data Sheet</b>                              |   |
| Company Identification   | Johnson and Allen Ltd<br>Neocol Works<br>Smithfield<br>Sheffield<br>S3 7AR.   |
| Telephone  | 0114 2738066<br>0114 2729842  |
| E-Mail (competent person)  | info@johnsonandallen.co.uk  |
| <b>1.4 Emergency telephone number</b>  |   |
| Emergency Phone No.  | 0114 2738066. (UK office hours 08.30-17.00)   |

## 2. SECTION 2: HAZARDS IDENTIFICATION

|   |  |
|---|--|
| <b>2.1 Classification of the substance or mixture</b> |  |
| Regulation (EC) No. 1272/2008 (CLP)                   | Aerosol 3; Pressurised container: May burst if heated.<br>Skin Irrit. 2; Causes skin irritation.<br>Eye Irrit. 2; Causes serious eye irritation.<br>Carc. 2; Suspected of causing cancer.<br>STOT RE 2; May cause damage to organs through prolonged or repeated exposure: Liver.<br>STOT SE 3; May cause respiratory irritation. May cause drowsiness or dizziness. |
| <b>2.2 Label elements</b>                             |  |
| Product Name  | According to Regulation (EC) No. 1272/2008 (CLP)<br>JAD DEVELOPER – AEROSOL.   |
| Hazard Pictogram                                      |     |
| Signal word(s)  | GHS07      GHS08<br>Warning.   |
| Hazard statement(s)                                   | H229: Pressurised container: May burst if heated.<br>H315: Causes skin irritation.<br>H319: Causes serious eye irritation.<br>H335: May cause respiratory irritation.<br>H336: May cause drowsiness or dizziness.  |



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Precautionary statement(s)

H351: Suspected of causing cancer.  
H373: May cause damage to organs through prolonged or repeated exposure: Liver.  
P201: Obtain special instructions before use.  
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P251: Do not pierce or burn, even after use.  
P260: Do not breathe vapour/spray.  
P271: Use only outdoors or in a well-ventilated area.  
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F.

2.3 Other hazards

None.

2.4 Additional Information

For full text of H/P Statements see section 16.

### 3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product as supplied: Aerosol.

#### 3.1 Substances

Not applicable.

#### 3.2 Mixtures

EC Classification No. 1272/2008

| Hazardous ingredient(s) | %W/W  | CAS No.    | EC No.    | REACH Registration No. | Hazard pictogram(s) and Hazard statement(s)  |
|-------------------------|-------|------------|-----------|------------------------|--|
| Dichloromethane         | 70-90 | 75-09-2    | 200-838-9 | None assigned          | GHS08, Carc. 2; H351, STOT RE 2; H373, GHS07, Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3; H335, H336 |
| Carbon dioxide          | 1-10  | 124-38-9   | 204-696-9 | None assigned          | GHS04, Press. Gas; H280  |
| Powder Dispersion Agent | <1    | 66455-14-9 | 500-165-3 | None assigned          | GHS05, Eye Dam. 1; H318, GHS09, Aquatic Acute 1; H400  |

#### 3.3 Additional Information

For full text of H/P Statements see section 16.

### 4. SECTION 4: FIRST AID MEASURES



#### 4.1 Description of first aid measures

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

Skin Contact

IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Unlikely route of exposure.



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|---|--|
| <b>4.2 Most important symptoms and effects, both acute and delayed</b>                | Inhalation: Headache, dizziness, nausea and vomiting.  |
| <b>4.3 Indication of any immediate medical attention and special treatment needed</b> | If exposed or concerned: Get medical advice/attention. |

### 5. SECTION 5: FIRE-FIGHTING MEASURES

Pressurised container: May burst if heated.

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|--|--|
| <b>5.1 Extinguishing Media</b><br>Suitable Extinguishing Media<br>Unsuitable Extinguishing Media | Foam, Carbon dioxide, Water fog or dry powder.<br>Water jet spray.   |
| <b>5.2 Special hazards arising from the substance or mixture</b>                                 | Heating may cause pressure rise with risk of bursting. Decomposes in a fire giving off toxic fumes: Phosgene, Hydrochloric acid, Carbon monoxide, Carbon dioxide, Nitrogen oxides.   |
| <b>5.3 Advice for fire-fighters</b>  | Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions. Keep containers cool by spraying with water if exposed to fire. |

### 6. SECTION 6: ACCIDENTAL RELEASE MEASURES

The product is an aerosol. It is unlikely to present spillage or leakage hazard. In case of rupture, released content should be contained as any other solvent spill.

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|--|--|
| <b>6.1 Personal precautions, protective equipment and emergency procedures</b> | Ensure adequate ventilation. Do not breathe vapour/spray. Avoid contact with skin and eyes. Avoid inhalation of high concentrations of vapours. Wear protective gloves/protective clothing/eye protection/face protection. |
| <b>6.2 Environmental precautions</b>   | Do not release large quantities into the surface water or into drains.   |
| <b>6.3 Methods and material for containment and cleaning up</b>                | Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a lidded container for disposal or recovery. Containers must not be punctured or destroyed by burning, even when empty.                  |
| <b>6.4 Reference to other sections</b>   | See Also Section 8 and 13  |

### 7. SECTION 7: HANDLING AND STORAGE

- |  |   |
|--|---|
| <b>7.1 Precautions for safe handling</b>   | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Provide adequate ventilation. Use only outdoors or in a well-ventilated area. Do not breathe vapour/spray. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. |
| <b>7.2 Conditions for safe storage, including any incompatibilities</b><br>Storage Temperature<br><br>Storage Life<br>Incompatible materials | Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store locked up.<br>Ambient. Do not expose to temperatures exceeding 50°C/ 122°F.<br>Stable under normal conditions.<br>Strong oxidising agents, Acids, Alkalis, Zinc, Aluminium.   |



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### 7.3 Specific end use(s)

For use in the Dye Penetrant Inspection Process BS EN ISO 571-1:1997 (BS EN ISO 3452-2:2006 Sensitivity level 2 when used in conjunction with penetrant family products).

## 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Occupational Exposure Limits

| SUBSTANCE       | CAS No.  | LTEL (8 hr TWA ppm) | LTEL (8 hr TWA mg/m <sup>3</sup> ) | STEL (ppm) | STEL (mg/m <sup>3</sup> ) | Note          |
|-----------------|----------|---------------------|------------------------------------|------------|---------------------------|---------------|
| Dichloromethane | 75-09-2  | 100                 | 350                                | 300        | 1060                      | WEL, BMGV, Sk |
| Carbon dioxide  | 124-38-9 | 5000                | 9150                               | 15000      | 27400                     | WEL           |

WEL: Workplace Exposure Limit (UK HSE EH40)

Bmgv: Biological monitoring guidance value (UK HSE EH40)

Sk - Can be absorbed through skin.

#### 8.1.2 Biological limit value

Not established.

#### 8.1.3 PNECs and DNELs

Not established.

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Provide adequate ventilation.

#### 8.2.2 Personal protection equipment

Eye/face protection

Wear suitable eye/face protection.



Skin protection (Hand protection/ Other)

Wear suitable protective clothing and gloves. Impervious gloves (EN 374).



Respiratory protection

Wear a suitable respirator if the ventilation is not sufficient to keep the solvent vapour concentration below the occupational limit values. A suitable mask with filter type AX may be appropriate.



Thermal hazards

Not applicable.

#### 8.2.3 Environmental Exposure Controls

Do not release large quantities into the surface water or into drains.

## 9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|  |                       |
|--|-----------------------|
| Appearance                                   | Aerosol.              |
| Colour                                       | White.                |
| Odour  | Characteristic odour. |
| Odour Threshold                              | Not available.        |
| pH   | Not applicable.       |
| Melting Point/Freezing Point                 | -97°C                 |
| Initial boiling point and boiling range      | 39.8°C                |
| Flash Point                                  | Not available.        |
| Evaporation rate                             | Not applicable.       |
| Flammability (solid, gas)                    | Non-flammable.        |
| Upper/lower flammability or explosive limits | Not applicable.       |



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|  |   |
|--|---|
| Vapour pressure                        | Not available.                              |
| Vapour density                         | Not available.                              |
| Relative density                       | 1.32g/l @ 20°C                              |
| Solubility(ies)                        | Slightly soluble in: Water.                 |
| Partition coefficient: n-octanol/water | 1.25 (Dichloromethane).                     |
| Auto-ignition temperature              | 624°C                                       |
| Decomposition Temperature              | Not available.                              |
| Viscosity                              | Not applicable.                             |
| Explosive properties                   | Pressurised container: May burst if heated. |
| Oxidising properties                   | Not available.                              |
| <b>9.2 Other information</b>           | None.                                       |

### 10. SECTION 10: STABILITY AND REACTIVITY

|  |  |
|--|--|
| <b>10.1 Reactivity</b>                         | Stable under normal conditions.                                |
| <b>10.2 Chemical stability</b>                 | Stable under normal conditions.                                |
| <b>10.3 Possibility of hazardous reactions</b> | No hazardous reactions known if used for its intended purpose. |
| <b>10.4 Conditions to avoid</b>                | Heat and direct sunlight.                                      |
| <b>10.5 Incompatible materials</b>             | Strong oxidising agents, Alkalis, Acids, Zinc, Aluminium.      |
| <b>10.6 Hazardous Decomposition Product(s)</b> | No hazardous decomposition products known.                     |

### 11. SECTION 11: TOXICOLOGICAL INFORMATION

|  |  |
|--|--|
| <b>11.1 Information on toxicological effects</b> |  |
| <b>11.1.1 Mixtures</b>                           |  |
| <b>Acute toxicity</b>                            |  |
| Ingestion  | Low oral toxicity.<br>Dichloromethane: LD50 (rat) >2000mg/kg   |
| Inhalation                                       | STOT SE 3; May cause drowsiness or dizziness.<br>Low acute toxicity. Effects and Symptoms: Headache, dizziness, nausea and vomiting.<br>Dichloromethane: LC50 (rat) 4hour(s) = 49000mg/m <sup>3</sup>  |
| Skin Contact                                     | Low acute toxicity.<br>Dichloromethane: LD50 (rat) >2000mg/kg  |
| Eye Contact                                      | Low acute toxicity.  |
| <b>Irritation</b>                                | Skin Irrit. 2; Causes skin irritation.<br>Eye Irrit. 2; Causes serious eye irritation.<br>STOT SE 3; May cause respiratory irritation.   |
| <b>Corrosivity</b>                               | Not classified.  |
| <b>Sensitisation</b>                             | It is not a skin sensitiser.   |
| <b>Repeated dose toxicity</b>                    | STOT RE 2; May cause damage to organs through prolonged or repeated exposure: Liver.   |
| <b>Carcinogenicity</b>                           | Carc. 2; Suspected of causing cancer.<br>Dichloromethane:<br>A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans: The agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histological type(s), or by mechanism(s) that may not be relevant to worker exposure. Available epidemiological studies do not confirm an increased risk of cancer in exposed humans. Available evidence does not suggest that the agent is likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure. |
| <b>Mutagenicity</b>                              | There is no evidence of mutagenic potential.   |
| <b>Toxicity for reproduction</b>                 | None anticipated.  |



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11.2 Other information None.

### 12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity Low toxicity to aquatic organisms.  
Dichloromethane:  
Fish: LC50 (96 hour) = 193mg/l  
Aquatic invertebrates: EC50 (48 hour) = 109mg/l

12.2 Persistence and degradability The product is biodegradable. The product is unlikely to persist in the environment.

12.3 Bioaccumulative potential The product has low potential for bioaccumulation.  
Bioconcentration factor (BCF) : 2 – 5.4

12.4 Mobility in soil The product is volatile and will partition into the atmosphere.  
The product has high mobility in soil.

12.5 Results of PBT and vPvB assessment Not classified as PBT or vPvB.

12.6 Other adverse effects None.

### 13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Non-emptied aerosol: Dispose of wastes in an approved waste disposal facility.

13.2 Additional Information Disposal should be in accordance with local, state or national legislation.

### 14. SECTION 14: TRANSPORT INFORMATION

14.1 UN number UN 1950

14.2 UN Proper Shipping Name AEROSOLS.

14.3 Transport hazard class(es) 2

14.4 Packing Group None.

14.5 Environmental hazards Not classified as a Marine Pollutant.

14.6 Special precautions for user None.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

14.8 Additional Information

14.8.1 ADR/RID Hazard label(s): 2.2 + 6.1  
ADR Classification Code: 5T  
Special Provisions: 190 327 344 625  
Tunnel Restriction Code: D  
Limited quantity: 120 ml  
Excepted quantity: E0  
Packaging Instructions: P003 LP02 (Special Provisions: PP17 PP87 RR6 L2, Mixed Provisions: MP9)  
Special Provisions for Carriage Packages:  
Bulk: Loading, etc: CV9 CV12 CV28  
Operations: S7

14.8.2 IMDG Hazard label(s): 2.2 + 6.1  
EmS: F-D, S-U  
Special Provisions: 63 190 277 327 959  
Limited quantity: SP277  
Excepted quantity: E0  
Packaging Instructions: P003 (Special Provisions: PP17)



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### 14.8.3 ICAO/IATA

Hazard label(s): 2.2 + 6.1  
Excepted quantity: E0  
Cargo Aircraft Only: Packaging Instructions: 203,  
Maximum quantity: 150kg  
Passenger and Cargo Aircraft: Packaging Instructions: 203,  
Maximum quantity: 75kg  
Passenger and Cargo Limited Quantity: Packaging  
Instructions: Y203, Maximum quantity: 30kg

## 15. SECTION 15: REGULATORY INFORMATION

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

#### 15.1.1 EU regulations

Authorisations and/or restrictions on use

Candidate List of Substances of Very High Concern for Authorisation All chemicals are not listed.

REACH: ANNEX XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Listed: Dichloromethane (CAS No.: 75-09-2)

REACH: ANNEX XIV List of substances subject to authorisation All chemicals are not listed.

Community Rolling Action Plan (CoRAP) Listed: Dichloromethane (CAS No.: 75-09-2)

#### 15.1.2 National regulations

None known.

#### 15.2 Chemical Safety Assessment

Not applicable.

## 16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 3, 8, 15

### LEGEND

|                 |   |
|-----------------|---|
| LTEL            | Long Term Exposure Limit                                      |
| STEL            | Short Term Exposure Limit                                     |
| DNEL            | Derived No Effect Level                                       |
| PNEC            | Predicted No Effect Concentration                             |
| PBT             | Persistent, Bioaccumulative and Toxic                         |
| vPvB            | very Persistent and very Bioaccumulative                      |
| OEL             | Occupational Exposure Limits                                  |
| BCF             | Bioconcentration factor                                       |
| Aerosol 3       | Aerosol Category 3  |
| Skin Irrit. 2   | Skin corrosion/irritation Category 2                          |
| Eye Irrit. 2    | Serious eye damage/irritation Category 2                      |
| Eye Dam. 1      | Serious eye damage/irritation Category 1                      |
| STOT SE 3       | Specific target organ toxicity — single exposure Category 3   |
| STOT RE 2       | Specific target organ toxicity — repeated exposure Category 2 |
| Carc. 2         | Carcinogenicity Category 2                                    |
| Aquatic Acute 1 | Hazardous to the aquatic environment Category 1               |
| Press. Gas      | Gases under pressure: Compressed gas                          |

### Hazard statement(s) and Precautionary statement(s)

|      |   |
|------|---|
| H280 | Contains gas under pressure; may explode if heated. |
| H315 | Causes skin irritation.                             |
| H318 | Causes serious eye damage.                          |
| H319 | Causes serious eye irritation.                      |
| H335 | May cause respiratory irritation.                   |
| H336 | May cause drowsiness or dizziness.                  |



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|                |  |
|----------------|--|
| H351           | Suspected of causing cancer.   |
| H373           | May cause damage to organs through prolonged or repeated exposure: Liver.  |
| H400           | Very toxic to aquatic life.  |
| P202           | Do not handle until all safety precautions have been read and understood.  |
| P264           | Wash hands thoroughly after handling.  |
| P271           | Use only outdoors or in a well-ventilated area.  |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P312           | Call a POISON CENTER/doctor if you feel unwell.  |
| P405           | Store locked up.   |
| P302+P352      | IF ON SKIN: Wash with plenty of water.   |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.   |
| P308+P313      | IF exposed or concerned: Get medical advice/attention.   |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P362+P364      | Take off contaminated clothing and wash it before reuse.   |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P403+P233      | Store in a well-ventilated place. Keep container tightly closed.   |

### Hazard pictogram(s)

GHS04



GHS08



GHS05



GHS09



GHS07



### Disclaimers

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### Annex to the extended Safety Data Sheet (eSDS)

Not applicable.