

JAC 2 - BULK

According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758 and SI 2020/1577

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

1.1 Product identifier

Product Name JAC 2 - BULK
 CAS No. 64741-66-8
 EC No. 921-728-3
 REACH Registration No. Not known.

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

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).
- Solvent.

 Uses Advised Against This product is not recommended for any industrial, professional or consumer use other than the Identified Uses above.

1.3 Details of the supplier of the safety data sheet

Company Identification Johnson and Allen Ltd
 Address of Supplier Neocol Works
 Smithfield
 Sheffield
 S3 7AR
 Postal code
 Telephone 0114 2738066
 Fax 0114 2729842
 E-mail info@johnsonandallen.co.uk
 Office hours 08:30 - 17:00

1.4 Emergency telephone number

Company 0114 2738066 (UK office hours 08.30-17.00)
 NHS Direct +44 111

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GB CLP Regulation, UK SI 2019/720 and UK SI 2020/1567
 Flam. Liq. 2 :Highly flammable liquid and vapour.
 Asp. Tox. 1 :May be fatal if swallowed and enters airways.
 Skin Irrit. 2 :Causes skin irritation.
 STOT SE 3 :May cause drowsiness or dizziness.
 Aquatic Chronic 2 :Toxic to aquatic life with long lasting effects.

2.2 Label elements

Product Name JAC 2 - BULK
 Hazard Pictogram(s) According to GB CLP Regulations, UK SI 2019/720 and UK SI 2020/1567



Signal Word(s) Danger
 Hazard Statement(s) H225: Highly flammable liquid and vapour.
 H304: May be fatal if swallowed and enters airways.
 H315: Causes skin irritation.
 H336: May cause drowsiness or dizziness.
 H411: Toxic to aquatic life with long lasting effects.
 Precautionary Statement(s) P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273: Avoid release to the environment.
 P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P331: Do NOT induce vomiting.
 P405: Store locked up.

2.3 Other hazards

None known.

2.4 Additional Information

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

JAC 2 - BULK**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / Registration number(s)	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Hydrocarbons, C7-C9 isoalkanes	64741-66-8	921-728-3	>99	Flam. Liq. 2 H225 Asp. Tox. 1 H304 Skin Irrit. 2 H315 STOT SE 3 H336 Aquatic Chronic 2 H411	GHS02 GHS08 GHS07 GHS09

3.2 Mixtures

Not applicable.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

Inhalation	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
Skin Contact	Wash with plenty of water. Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
Eye Contact	Flush eyes with water for at least 15 minutes while holding eyelids open. Get medical attention if eye irritation develops or persists.
Ingestion	Do NOT induce vomiting. Immediately call a POISON CENTRE/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Aspiration into the lungs may cause chemical pneumonitis, which can be fatal.
Causes skin irritation. May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Highly flammable liquid and vapour.

5.1 Extinguishing media

Suitable Extinguishing media	Extinguish preferably with foam, carbon dioxide or dry chemical.
Unsuitable extinguishing media	Water jet spray.

5.2 Special hazards arising from the substance or mixture

Highly flammable liquid and vapour. Decomposes in a fire giving off toxic fumes:
Smoke, Oxides of carbon.

5.3 Advice for firefighters

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. The vapour is heavier than air and spreads along ground.

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

Ensure adequate ventilation. Eliminate sources of ignition. Stop leak if safe to do so. Avoid breathing vapours. Avoid contact with skin. Wear protective gloves/protective clothing/eye protection/face protection.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Adsorb spillages onto sand, earth or any suitable adsorbent material. Collect spillage. Transfer to a lidded container for disposal or recovery.

6.4 Reference to other sections

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use non-sparking tools. Take action to prevent static discharges. Provide adequate ventilation. Use only outdoors or in a well-ventilated area. Avoid breathing vapours. Avoid contact with skin. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin thoroughly after handling.

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7.2 Conditions for safe storage, including any incompatibilities

Storage temperature
Storage life
Incompatible materials
7.3 Specific end use(s)

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Ambient.
Stable under normal conditions.
Strong oxidising agents.

- 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).
- Solvent.

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 ³)	STEL (ppm)	STEL (mg/m ³)	Note
						Not established

Region: United Kingdom
Source: UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Hydrocarbons, C7-C9 isoalkanes			
DNEL / DMEL	Oral	Inhalation	Dermal
Industry - Long Term - Local effects			
Industry - Long Term - Systemic effects			
Industry - Short term - Local effects			
Industry - Short term - Systemic effects			
Professional - Long Term - Local effects		2035 mg/m ³	773 mg/kg bw/day
Professional - Long Term - Systemic effects			
Professional - Short term - Local effects			
Professional - Short term - Systemic effects			
Consumer - Long Term - Local effects	699 mg/kg bw/day	608 mg/m ³	699 mg/kg bw/day
Consumer - Long Term - Systemic effects			
Consumer - Short term - Local effects			
Consumer - Short term - Systemic effects			

Hydrocarbons, C7-C9 isoalkanes	
Environment	PNEC
Aquatic Compartment (including sediment)	
Terrestrial Compartment	
Atmospheric Compartment	

8.2 Exposure controls

8.2.1. Appropriate engineering controls Provide adequate ventilation.

8.2.2. Personal protection equipment



Eye Protection

Not normally required. Wear protective eye glasses for protection against liquid splashes.



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374). Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Protective gloves should be replaced at first signs of wear.

Recommended: Nitrile rubber.
Glove thickness: > 0.38 mm
Protective index: Class 6
Break through time: > 480 minutes.

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Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. A suitable mask with filter type A (EN14387 or EN405) may be appropriate.



Thermal hazards Not applicable.

8.2.3. Environmental Exposure Controls Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
	Colour: Colourless.
Odour	Isoparaffinic hydrocarbon.
Odour threshold	Not established.
pH	Not known.
Melting point/freezing point	Not known.
Initial boiling point and boiling range	90-150°C (194-302°F)
Flash Point	< 10°C (50°F)
Evaporation rate	1.6 (n-butyl acetate = 1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	0.7-6.3 Vol-%
Vapour pressure	< 10 kPa (75 mm Hg) @ 25°C
Vapour density	> 1 @ 101 kPa (Air = 1)
Density (g/ml)	0.65-0.75
Relative density	0.651-0.751 @ 15°C
Solubility(ies)	Solubility (Water): Slightly soluble. Solubility (Other): Not known.
Partition coefficient: n-octanol/water	Log Pow = 3.52
Auto-ignition temperature	> 200°C (392°F)
Decomposition Temperature (°C)	Not known.
Viscosity	0.5-1.2 cSt @ 20°C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2 Other information

Pour Point (°C)	< -20
Molecular weight	119
Hygroscopic	No.
Coefficient of thermal expansion	0.00118 v/v/°C

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

Avoid friction, sparks, or other means of ignition.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Low oral toxicity. LD50 (rat) = 7100-7800 mg/kg (OECD 401)
Acute toxicity - Skin Contact	Low acute toxicity. LD50 (rabbit) > 2000 mg/kg (OECD 402)
Acute toxicity - Inhalation	Low acute toxicity. LC50 (rat) (4 hours) > 9.4 mg/l (OECD 403)
Skin corrosion/irritation	Causes skin irritation. Irritating to skin. (OECD 404)

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Serious eye damage/irritation	Non-irritant.
Skin sensitization data	It is not a skin sensitizer. (OECD 406)
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	There is no evidence of mutagenic potential. Negative. (OECD 471, 473, 476, 478)
Carcinogenicity	No evidence of carcinogenicity.
Reproductive toxicity	Studies in animals have shown that exposures produce no teratogenic effects. NOAEL (Developmental Toxicity): 9000 ppm (OECD 414) NOAEL (Reproductive toxicity): 9000 ppm (OECD 416)
Lactation	Not classified.
STOT - single exposure	May cause drowsiness or dizziness. No data.
STOT - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways. No data. Aspiration into the lungs may cause chemical pneumonitis, which can be fatal.
11.2 Other information	Not known.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity - Aquatic invertebrates	Toxic to aquatic life with long lasting effects. Fresh water: EC50 (Daphnia magna) (48 hour) = 2.4 mg/l Saltwater: LC50 (Brown shrimp) (48 hour) = 2.4 mg/l
Toxicity - Fish	LC50 (Rainbow trout) (96 hour) = 18.4 mg/l
Toxicity - Algae	EC50 (72 hour) = 10-30 mg/l
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

12.2 Persistence and degradability

This substance is biodegradable. Unlikely to persist.
Inherent Biodegradation: 51% (28 days) (OECD 301F)

12.3 Bioaccumulative potential

The substance has high potential for bioaccumulation.

12.4 Mobility in soil

Slightly soluble. The substance is predicted to have high mobility in soil. The substance is volatile and will partition into the atmosphere.

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Dispose of contents/container to: Suitable incineration plant. Refer to manufacturer or supplier for information on recovery or recycling. Do NOT landfill.

13.2 Additional Information

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

SECTION 14: TRANSPORT INFORMATION**14.1 UN number**

UN No. 3295

14.2 UN proper shipping name

UN proper shipping name HYDROCARBONS, LIQUID, N.O.S. (vapour pressure at 50 °C not more than 110 kPa) (Contains: Hydrocarbons, C7-C9 isoalkanes)

14.3 Transport hazard class(es)

ADR/RID	
ADR/RID Class	3
ADR Classification Code	F1
Special Provisions	640D
Limited Quantities	1 L
Excepted Quantities	E2
Emergency Action Code	3Y
Mixed Packing Instructions for Packages	P001 IBC02 R001
Special Packing Provisions for Packages	
Mixed Packing Instructions for Packages	MP19
Packing Instructions for Portable Tanks	T7
Special Provisions for Portable Tanks	TP1 TP8 TP28
Tank Code for Tanks	LGBF
Special Provisions for Tanks	
Vehicle for Tank Carriage	FL

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ADR Transport Category	2
Tunnel Restriction Code	D/E
Special Provisions for Carriage - Packages	
Special Provisions for Carriage - Bulk	
Special Provisions for Carriage - Loading, Unloading and Handling	
Special Provisions for Carriage - Operation	S2 S20
ADR HIN	33
IMDG	
IMDG Class	3
Special Provisions	640D
Limited Quantities	1 L
Excepted Quantities	E2
Mixed Packing Instructions for Packages	P001 IBC02 R001
Special Packing Provisions for Packages	
Packing Instructions for Portable Tanks	T7
Special Provisions for Portable Tanks	TP1 TP8 TP28
IMDG EMS	F-E, S-D
Stowage and Handling	Category B
Segregation	
Marine Pollutant	
ICAO/IATA	
IATA Proper Shipping Name	HYDROCARBONS, LIQUID, N.O.S. (vapour pressure at 50 °C not more than 110 kPa) (Contains: Hydrocarbons, C7-C9 isoalkanes)
Excepted Quantities	E2
Passenger and Cargo Aircraft Limited Quantities Packing Instructions	Y341
Passenger and Cargo Aircraft Limited Quantities Max net Qty	1L
Passenger and Cargo Aircraft Packing Instructions	353
Passenger and Cargo Aircraft Max net Qty	5L
Cargo Aircraft Packing Instructions	364
Cargo Aircraft Max net Qty	60L
Special Provisions	A3, A324
Emergency Response Guidebook (ERG) Code	3H
Labels	
Labels	3



14.4 Packing group

Packing group II

14.5 Environmental hazards

Environmental hazards Classified as a Marine Pollutant.

14.6 Special precautions for user

Special precautions for user Not known.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No information available

SECTION 15: REGULATORY INFORMATION

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

United Kingdom Regulations - Authorisations and/or Restrictions On Use

UK REACH Candidate List of Substances Not listed

of Very High Concern for Authorisation

UK REACH Authorisation List (Annex Not listed

XIV) list of substances subject to authorisation

UK REACH Restrictions List (Annex XVII) Hydrocarbons, C7-C9 isoalkanes (64741-66-8)

Restrictions on the manufacture, placing

on the market and use of certain

dangerous substances, mixtures and

articles

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UK REACH Rolling Action Plan (RAP)	Not listed
The Persistent Organic Pollutants Regulations 2007 (SI 2007/3106) as amended	Not listed
The Ozone-Depleting Substances and Fluorinated Greenhouse Gases (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019/583)	Not listed
The Prior Informed Consent (PIC) Regulations concerning the export and import of hazardous chemicals SI2008/2108 as amended	Not listed
European Regulations - Authorisations and/or Restrictions On Use Community Rolling Action Plan (CoRAP)	Not listed
15.2 Chemical Safety Assessment	
United Kingdom	Not applicable.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16

LEGEND

Hazard Pictogram(s)



GHS02

GHS08

GHS07

GHS09

Hazard classification

Flam. Liq. 2 : Flammable liquid, Category 2
 Asp. Tox. 1 : Aspiration hazard, Category 1
 Skin Irrit. 2 : Skin corrosion/irritation, Category 2
 STOT SE 3 : Specific target organ toxicity — single exposure, Category 3
 Aquatic Chronic 2 : Hazardous to the aquatic environment, Chronic, Category 2

Hazard Statement(s)

H225: Highly flammable liquid and vapour.
 H304: May be fatal if swallowed and enters airways.
 H315: Causes skin irritation.
 H336: May cause drowsiness or dizziness.
 H411: Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233: Keep container tightly closed.
 P240: Ground and bond container and receiving equipment.
 P241: Use explosion-proof electrical/ventilating/lighting/equipment.
 P242: Use non-sparking tools.
 P243: Take action to prevent static discharges.
 P261: Avoid breathing vapours.
 P264: Wash hands and exposed skin thoroughly after handling.
 P271: Use only outdoors or in a well-ventilated area.
 P273: Avoid release to the environment.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
 P302+P352: IF ON SKIN: Wash with plenty of water.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312: Call a POISON CENTRE/doctor if you feel unwell.
 P331: Do NOT induce vomiting.
 P332+P313: If skin irritation occurs: Get medical advice/attention.
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P370+P378: In case of fire: Use polar resistant foam, CO2 or dry powder to extinguish.
 P391: Collect spillage.

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P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P403+P235: Store in a well-ventilated place. Keep cool.

P405: Store locked up.

P501: Dispose of contents/container to: Suitable incineration plant.

Acronyms

ADN : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE : Acute Toxicity Estimate

CAS : Chemical Abstracts Service

DNEL : Derived No Effect Level

EC : European Community

EINECS : European Inventory of Existing Commercial Chemical Substances

IATA : International Air Transport Association

IBC : Intermediate Bulk Container

ICAO : International Civil Aviation Organization

IMDG : International Maritime Dangerous Goods

LTEL : Long term exposure limit

PBT : Persistent, Bioaccumulative and Toxic

PNEC : Predicted No Effect Concentration

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals

RID : Regulations concerning the International Carriage of Dangerous Goods by Rail

STEL : Short term exposure limit

STOT : Specific Target Organ Toxicity

UN : United Nations

vPvB : very Persistent and very Bioaccumulative

OECD: Organisation for Economic Cooperation and Development

Key literature references and sources for GB CLP Regulation, UK SI 2019/720 and UK SI 2020/1567 data used to compile the SDS

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