SAFETY DATA SHEET

JEM R365 HAZE FLUID

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http://www.martin.com/EN-US/Safety-Documents

1. Identification of the Substance/Mixture & Of The Company/Undertaking

1.1. Product Identifier:

Name: JEM R365 Haze Fluid

1.2. Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against:

Fluid mixture for use in the creation of haze effects using a dedicated JEM Ready 365 brand haze machine.

1.3. Details Of The Supplier Of The Safety Data Sheet:

Martin Manufacturing (UK) Ltd
Belvoir Way,
Fairfield Industrial Estate,
Louth,
Lincolnshire,
LN11 0LQ
UK
Tel: +44 (0) 1507 604399
Fax: +44 (0) 1507 601956
Email: jem-service@harman.com

1.4. Emergency Telephone Number:

+44 1707 668110 (24-hour)
martintechnicalsupport@harman.com

2. Hazards Identification:

2.1. Classification Of The Substance Or Mixture:

This substance does not meet the criteria for classification in accordance with Regulation (EC) No 1272/2008.
No risk or safety phrases stipulated.

2.2. Label Elements:

Label Name: JEM R365 Haze Fluid

No other elements are needed in accordance with Article 25 and Article 32(6) of Regulation (EC) No 1272/2008.

2.3. Other Hazards:

This mixture is for the production of synthetic haze in an appropriate JEM Ready 365 brand haze machine only.

Ingestion	Very low toxicity
Eye/skin	Very low toxicity
Inhalation	Low concentration of hazardous substances in vapour. Undiluted vapour should not be inhaled. (Note: The concentration of smoke components in the final product is below the OES under normal operating conditions)

3. Composition/Information On Ingredients

3.1. Substances:

Food Grade Glycerol:
Glycerol: CAS Registry Number: 56-81-5

Food/High Grade Glycols:
Monopropylene Glycol: CAS Registry Number: 57-55-6

De-mineralised water.

Contains no substances stated in the Globally Harmonised System of Classification and Labelling of Chemicals.

Contains monopropylene glycol, for which a community workplace exposure limit has been set.

3.2. Mixtures:

The largest single component of this product is Glycerol.
Other ingredients: 5% - 40%

4. First Aid Measures

4.1. Description Of First Aid Measures:

Exposure Route	Symptom	Treatment
Inhalation	Mild irritation of nose & throat	Remove from exposure, rest and keep warm. In severe cases, or if recovery is not rapid or complete, seek medical attention
Skin Contact	Mild irritation	Drench the skin with plenty of water. Remove contaminated clothing and wash before re-use. If large areas of the skin are damaged or if irritation persists seek medical attention
Eye Contact	Mild irritation	Irrigate thoroughly with water for at least 10 minutes. Obtain medical attention
Ingestion	Mild irritation of gastro-intestinal tract	Wash out mouth with water. Do not induce vomiting. If patient is conscious, give water to drink. If patient feels unwell seek medical attention

4.2. Most Important Symptoms And Effects, Both Acute And Delayed:

Mild irritation of nose & throat

Remove from exposure, rest and keep warm.

In severe cases, or if recovery is not rapid or complete, seek medical attention.

4.3. Indication Of Any Immediate Medical Attention And Special Treatment Needed:

None stated.

5. Fire Fighting Measures

5.1. Extinguishing Media:

Suitable Extinguishers:

Alcohol-resistant or all-purpose-type foam.

Use carbon dioxide or dry powder for small fires only.

Unsuitable Extinguishers:

Do not direct a solid stream of water or foam into hot burning pools; as this may cause frothing and increase the intensity of a fire.

5.2. Special Hazards Arising From The Substance Or Mixture:

Hazardous Combustion Product

Oxides of carbon including aldehydes.

5.3. Advice For Firefighters:

Special equipment for fire fighting:

Self-contained breathing apparatus.

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment And Emergency Procedures:

Wear appropriate PPE when handling - see section 8.2.

6.2. Environmental Precautions:

Prevent entry into drains and water courses.

6.3. Methods And Material For Containment And Cleaning Up:

Cover drains to prevent entry into water courses.
Bund or absorb material with sand, earth or other suitable absorbent material.
If possible, transfer to a salvage tank, otherwise absorb residues and place in suitable labelled containers and hold for waste disposal.

6.4. Reference To Other Sections:

See section 13 for disposal procedures.

7. Handling and Storage

7.1. Precautions For Safe Handling:

Avoid prolonged skin contact.
Avoid contact with eyes.
Avoid spills.
Ensure good general ventilation of area.
Avoid creating spray.
Do not breathe undiluted vapour.

7.2. Conditions For Safe Storage, Including Any Incompatibilities:

Store in original closed containers.
Store at ambient temperature.
Store away from materials listed in section 10.

7.3. Specific End Use(s):

Only for use in a designated haze machine for the production of haze as a special effect.

8. Exposure Controls/Personal Protection

8.1. Control Parameters:

8.1.3. Exposure Limit Values

Does not exceed 10mg/m³ for particulate suspension and 474mg/m³ for total vapour plus particulates.

OES for monopropylene glycol set at 150 ppm (total vapour and particulates) for 8-hour TWA, and 10 mg/m3 (particulates) for 15-minute STEL.

Norway - Substance with CAS number 57-55-6 has Norwegian exposure limits of: 25 ppm and 79 mg/m³

8.2. Exposure Controls:

Recommended PPE:

Respiratory	None needed under normal handling conditions
Hand	None needed under normal handling conditions
Eye	None needed under normal handling conditions
Skin	Overalls and boots
Hygiene	Always wash thoroughly after handling chemicals

9. Physical and Chemical Properties

9.1. Information On Basic Physical And Chemical Properties:

Appearance: Colourless liquid
Odour: Mild
Odour threshold: No data available to us
pH: Neutral
Melting point/range: No data available to us
Boiling point/range: No data available to us
Flash point: ~ 175°C
Evaporation rate: No data available to us
Flammability: No data available to us
Flammability limits: 2.9 - 18.1 v/v (estimated)
Vapour pressure: <0.01 hPa at 20°C
Vapour density: 3.17
Relative density: 1.26g/ml at 20 °C
Solubility: Completely miscible in water
Partition coefficient: n-octanol/water: No data available to us
Auto-ignition temperature: 370°C
Decomposition temperature: No data available to us
Viscosity: No data available to us
Explosive properties: No data available to us
Oxidising properties: No data available to us

9.2. Other Information:

No data available to us.

10. Stability and Reactivity

10.1. Reactivity:

No data available to us.

10.2. Chemical Stability:

Stable in normal conditions.

10.3. Possibility Of Hazardous Reactions:

Possibility of explosive decomposition if combined with strong acids or bases at elevated temperatures.

10.4. Conditions To Avoid:

Elevated temperatures.

10.5. Incompatible Materials:

Strong acids and bases; strong oxidisers.

10.6. Hazardous decomposition products:

Oxides of carbon, including aldehydes.

11. Toxicological Information

11.1. Information On Toxicological Effects:

LD50 for monopropylene glycol:
21000 - 33700 mg/kg oral - rat, >10000 mg/kg skin - rabbit.

May cause slight irritation to skin, eyes and mucous membranes.
Large doses may produce adverse effects on liver, kidneys and central nervous system.
No evidence in developmental toxicity studies for either embryotoxic or teratogenic effects.

12. Ecological Information

12.1. Toxicity:

Short and long-term effects
LC50, fathead minnow = 4600 - 54900 mg/l
EC50, Daphnia magna = 4850 - 34400 mg/l

12.2. Persistence And Degradability:

The preparation is largely biodegradable:
BOD5 = 1.08 gO2/g; ThOD = 1.68 gO2/g; COD = 1.63 gO2/g
BOD20/ThOD = 86%

12.3. Bioaccumulative Potential:

Low.

12.4. Mobility In Soil:

Liquid with low volatility, soluble in water, predicted to have high mobility in soil.

12.5. Results Of PBT And vPvB Assessment:

No data available to us.

12.6. Other Adverse Effects:

13. Disposal Considerations

13.1. Waste Treatment Methods:

a. Substance:
Via an authorised waste disposal contractor to an approved waste disposal site, observing all local and national regulations.

b. Container:
As for substance. Used containers must not be cut up or punctured until completely purged of product residues.

14. Transport Information

No special precautions for transport

14.1. UN Number:

Not Regulated.

14.2. UN Proper Shipping Name:

Not Regulated.

14.3. Transport Hazard Class:

Not Regulated.

14.4. Packing Group:

Not Regulated.

14.5. Environmental Hazards:

Not Regulated.

14.6. Special Precautions For User:

Not Regulated.

14.7. Transport In Bulk According To Annex II Of MARPOL73/78 And The IBC Code:

Not Regulated.

15. Regulatory Information

15.1. Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture:

Symbol: No risk or safety phrases stipulated
Risk phrases: No risk or safety phrases stipulated
Safety phrases: No risk or safety phrases stipulated
E.E.C. Number: No risk or safety phrases stipulated

Use of this material may be governed by the following regulations:
EU Regulation 453/2010
Users are advised to consult these regulations for further information.

15.2. Chemical Safety Assessment:

No data available to us.

16. Other Information

The information contained in this data sheet does not constitute an assessment of workplace risk as required by other health and safety legislation.
No special training is required for handling this preparation other than normal precautions for safe handling of chemicals
This material is usually used for the production of synthetic haze in an appropriate JEM Ready 365 brand haze machine.
The concentration of smoke components is below the OES under normal operating conditions.
It must not be used for any other purpose, or in any other equipment
Further details may be available on request from the supplier, whose address, telephone number and email address are given in section 1.

Sources of information:

1. Suppliers' Safety Data Sheets for substances used as raw materials in the preparation.
2. Regulation (EC) No 1907/2006 – REACH
3. Regulation (EC) 453/2010 – REACH Amendment
4. Regulation (EC) No 1272/2008 - CLP Regulation
5. GB 13690-2009 National Standard of the People's Republic of China
6. NFPA 325M Guide to fire hazard properties of flammable liquids, gases, and volatile solids
7. Globally Harmonized System of Classification and Labelling of Chemicals – GHS

SAFETY DATA SHEET

JEM R365 HAZE FLUID

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Any further information needed please contact: Email: jem-service@harman.com