



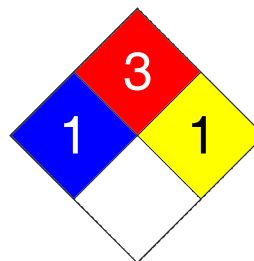
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name Dynamic Aerosol Fluorescent Paints
Synonym(s) Jamaica Orange - AB22F101
Sunset Orange - AB22F103
Titan Red - AB22 F105
Inverter Orange - AB22F111
CAS # Mixture
Product Use Coating
Manufacturer Dynamic Paint Products Inc.
7040 Financial Drive
Mississauga, ON L5N 7H5 CA
Phone: 1-905-812-9319
Emergency Phone: 1-613-996-6666 (CANUTEC)

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 1
Flammability	3
Physical Hazard	1
Personal Protection	B



2. Hazards Identification

Emergency Overview DANGER
Extremely flammable. Contents under pressure. Containers may explode when heated.
Eye and skin irritant. Contains a potential teratogen.

Potential short term health effects

Routes of exposure Eye. Skin contact Skin absorption. Inhalation.

Eyes May cause irritation.

Skin May cause irritation. May be absorbed through the skin.

Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

Ingestion Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

Target organs Eyes. Kidney. Liver. Respiratory system. Skin.

Chronic effects Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Signs and symptoms Symptoms may include redness, oedema, drying, defatting and cracking of the skin.
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Toluene	108-88-3	10 - 30
Solvent naphtha (petroleum), light aliphatic *	64742-89-8	10 - 30
Isobutane	75-28-5	10 - 30
Heptane *	142-82-5	10 - 30
Stoddard solvent	8052-41-3	5 - 10
Propane	74-98-6	7 - 13
Composition comments	* May contain this chemical	

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
Ingestion	Not a normal route of exposure. Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Notes to physician

Symptoms may be delayed.

General advice

Do not puncture or incinerate container. Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire-fighting Measures

Flammable properties

Flammable by WHMIS criteria. Containers may explode when heated.

Extinguishing media

Suitable extinguishing media Carbon dioxide. Dry chemical. Foam. Water Fog.

Unsuitable extinguishing media Water.

Protection of firefighters

Specific hazards arising from the chemical Contents under pressure. Pressurized container may explode when exposed to heat or flame. Cool containers with flooding quantities of water until well after fire is out.

Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products

May include and are not limited to: Oxides of carbon.

Explosion data

Sensitivity to mechanical impact Not available

Sensitivity to static discharge Not available

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up

Before attempting clean up, refer to hazard data given above. Remove sources of ignition. Although the chance of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, absorb spilled material with a non-flammable absorbent such as sand or vermiculite.

7. Handling and Storage

Handling

Use good industrial hygiene practices in handling this material.

Storage

Keep out of reach of children. Store in a closed container away from incompatible materials. Keep away from heat, open flames or other sources of ignition. Do not store at temperatures above 49°C (120.2°F).

8. Exposure Controls / Personal Protection

Exposure limit values

Ingredient(s)	Exposure limit values
Heptane	ACGIH-TLV TWA: 400 ppm STEL: 500 ppm
Isobutane	ACGIH-TLV TWA: 1000 ppm
Propane	ACGIH-TLV TWA: 1000 ppm
Solvent naphtha (petroleum), light aliphatic	ACGIH-TLV Not established
Stoddard solvent	ACGIH-TLV TWA: 100 ppm
Toluene	ACGIH-TLV TWA: 20 ppm Skin: 50 ppm

Engineering controls

General ventilation normally adequate.

Personal protective equipment

Eye/Face protection

Wear safety glasses with side shields.

Hand protection

Rubber gloves. Confirm with a reputable supplier first.

Skin and body protection

As required by employer code.

Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Aerosol.
Colour	Various colours
Form	Aerosol.
Odour	Aromatic.
Odour threshold	Not available
Physical state	Liquid
pH	Not available
Freezing point	Not available
Boiling point	92 - 156 °C (197.60 - 312.80 °F)
Pour point	Not available
Flash point	-4 - 4 °C (24.80 - 39.20 °F)
Evaporation Rate	> 1 (BuAc = 1)
Flammability limits in air, lower, % by volume	Not available
Flammability Limits in Air, Upper, % by Volume	Not available
Vapour pressure	> 275 kPa
Vapour density	> 1 (Air = 1)
Specific gravity	0.79 - 0.89 (H ₂ O = 1)
Octanol/water coefficient	Not available
Solubility (H ₂ O)	Negligible
Auto-ignition temperature	Not available

Viscosity Water thin
Percent volatile 84 - 87

10. Stability and Reactivity

Chemical stability Stable under recommended storage conditions.
Conditions to avoid Aerosol containers are unstable at temperatures above 49°C (120.2°F). Do not mix with other chemicals.
Incompatible materials Strong oxidizing agents. Acids. Caustics.
Hazardous decomposition products May include and are not limited to: Oxides of carbon.
Possibility of hazardous reactions Hazardous polymerisation does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Heptane	Not available
Isobutane	658 mg/l/4h rat
Propane	Not available
Solvent naphtha (petroleum), light aliphatic	1400 mg/l/4h rat
Stoddard solvent	> 5500 mg/m3 rat
Toluene	12.5 mg/l/4h rat

Component analysis - Oral LD50

Ingredient(s)	LD50
Heptane	15000 mg/kg rat
Isobutane	Not available
Propane	Not available
Solvent naphtha (petroleum), light aliphatic	5000 mg/kg rat
Stoddard solvent	5000 mg/kg rat
Toluene	636 mg/kg rat

Effects of acute exposure

Eye May cause irritation.
Skin May cause irritation. May be absorbed through the skin.
Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
Ingestion Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

Sensitisation Non-hazardous by WHMIS criteria.

Chronic effects Non-hazardous by WHMIS criteria.

Carcinogenicity Non-hazardous by WHMIS criteria.

ACGIH - Threshold Limit Values - Carcinogens

Toluene 108-88-3 A4 - Not Classifiable as a Human Carcinogen

IARC - Group 3 (Not Classifiable)

Toluene 108-88-3 Monograph 71 [1999]; Monograph 47 [1989]

Mutagenicity Non-hazardous by WHMIS criteria.

Reproductive effects Non-hazardous by WHMIS criteria.

Teratogenicity Toluene (benzene, methyl-) has caused fetotoxicity (reduced fetal weight), behavioural effects (effects on learning and memory) and hearing loss (in males). These effects have been observed in the offspring of rats exposed by inhalation to 1200 or 1800 ppm toluene. These effects were observed in the absence of maternal toxicity.

Synergistic Materials Not available

12. Ecological Information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns.	
Ecotoxicity - Freshwater Algae Data		
Solvent naptha (petroleum), light aliphatic	64742-89-8	72 Hr EC50 Pseudokirchneriella subcapitata: 4700 mg/L
Toluene	108-88-3	96 Hr EC50 Pseudokirchneriella subcapitata: >433 mg/L; 72 Hr EC50 Pseudokirchneriella subcapitata: 12.5 mg/L [static]
Ecotoxicity - Freshwater Fish Species Data		
Heptane	142-82-5	96 Hr LC50 Cichlid fish: 375.0 mg/L
Toluene	108-88-3	96 Hr LC50 Pimephales promelas: 15.22-19.05 mg/L [flow-through] (1 day old); 96 Hr LC50 Pimephales promelas: 12.6 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.89-7.81 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 14.1-17.16 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.8 mg/L [semi-static]; 96 Hr LC50 Lepomis macrochirus: 11.0-15.0 mg/L [static]; 96 Hr LC50 Oryzias latipes: 54 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 28.2 mg/L [semi-static]; 96 Hr LC50 Poecilia reticulata: 50.87-70.
Ecotoxicity - Microtox Data		
Toluene	108-88-3	30 min EC50 Photobacterium phosphoreum: 19.7 mg/L
Ecotoxicity - Water Flea Data		
Heptane	142-82-5	24 Hr EC50 Daphnia magna: >10 mg/L
Toluene	108-88-3	48 Hr EC50 Daphnia magna: 5.46 - 9.83 mg/L [Static]; 48 Hr EC50 Daphnia magna: 11.5 mg/L
Environmental effects	Harmful to aquatic life.	
Aquatic toxicity	Not available	
Persistence and degradability	Not available	
Bioaccumulation/accumulation	Not available	
Partition coefficient	Not available	
Mobility in environmental media	Not available	
Chemical fate information	Not available	
Other adverse effects	Not available	

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Review federal, provincial, and local government requirements prior to disposal. Do not puncture or incinerate container.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name	AEROSOLS, flammable
Hazard class	2.1
UN number	1950

Additional information:

Special provisions	80
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15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - CEPA - High Priority Chemicals as Identified by DSL Categorization

Isobutane 75-28-5 Batch 4, published November 17, 2007

Canada - WHMIS - Ingredient Disclosure List

Heptane	142-82-5	1 %
Stoddard solvent	8052-41-3	1 %
Toluene	108-88-3	1 %

WHMIS classification Class A - Compressed Gas, Class B - Division 5; Flammable Aerosol, Class D - Division 2A, 2B

WHMIS status Controlled

WHMIS labeling



Inventory Status

Country(s) or region	Inventory Name	On Inventory (Yes/No)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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Other Information For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.