



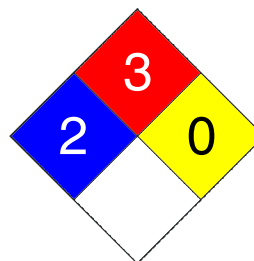
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name DYN Hi-Heat Paint - Flat Black - AA120100, AA120400
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	* 2
Flammability	3
Physical Hazard	0
Personal Protection	B



2. Hazards Identification

Emergency Overview DANGER
Flammable liquid - may release vapours that form flammable mixtures at or above the flash point. Containers may explode when heated.
May cause eye and skin irritation.
May cause chronic toxic effects.
Contains material which may cause cancer.
Contains potential teratogens.
Contains a potential mutagen.

Potential short term health effects

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

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 Harmful if swallowed. 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
Zinc, elemental	7440-66-6	0.5 - 1.5
Ethylbenzene	100-41-4	1 - 5
Carbon black	1333-86-4	1 - 5
Xylene	1330-20-7	10 - 30
Toluene	108-88-3	10 - 30
Ligroine	8032-32-4	10 - 30

4. First Aid Measures

First aid procedures

Eye contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
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.
Ingestion	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

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. Vapours may travel to a source of ignition and flash back. Containers may explode when heated.

Extinguishing media

Suitable extinguishing media Carbon dioxide. Dry chemical. Foam.

Unsuitable extinguishing media Not available

Protection of firefighters

Specific hazards arising from the chemical Not available

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 Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up Remove sources of ignition. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling Use according to package label instructions. Avoid breathing vapours or mists of this product.

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.

8. Exposure Controls / Personal Protection

Exposure limit values

Ingredient(s)	Exposure limit values
Carbon black	ACGIH-TLV TWA: 3.5 mg/m ³
Ethylbenzene	ACGIH-TLV TWA: 100 ppm STEL: 125 ppm
Ligroine	ACGIH-TLV TWA: 300 ppm
Toluene	ACGIH-TLV TWA: 20 ppm Skin: 50 ppm
Xylene	ACGIH-TLV TWA: 100 ppm STEL: 150 ppm
Zinc, elemental	ACGIH-TLV Not established

Engineering controls

Use only under good ventilation conditions or with respiratory protection.

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

Not normally required if good ventilation is maintained and exposure guidelines are not exceeded. 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	Opaque.
Colour	Black
Form	Liquid
Odour	Strong Solvent
Odour threshold	Not available
Physical state	Liquid
pH	Not available
Freezing point	Not available
Boiling point	110 °C (230.00 °F)
Pour point	Not available
Flash point	4.4 °C (39.92 °F) TCC
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	Not available
Vapour density	> 1 (Air = 1)
Specific gravity	1 (H ₂ O = 1)
Octanol/water coefficient	Not available

Solubility (H2O)	Insoluble
Auto-ignition temperature	Not available
VOC (Weight %)	75.3
Viscosity	Water thin

10. Stability and Reactivity

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Avoid high temperatures. Do not mix with other chemicals.
Incompatible materials	Caustics. Acids. Oxidizers.
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
Carbon black	Not available
Ethylbenzene	17.2 mg/l/4h rat
Ligroine	3400 mg/l/4h rat
Toluene	12.5 mg/l/4h rat
Xylene	5000 mg/l/4h rat
Zinc, elemental	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Carbon black	8000 mg/kg rat
Ethylbenzene	3500 mg/kg rat
Ligroine	6000 mg/kg rat
Toluene	636 mg/kg rat
Xylene	4300 mg/kg rat
Zinc, elemental	Not available

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	Harmful if swallowed. May cause stomach distress, nausea or vomiting.
Sensitisation	Non-hazardous by WHMIS criteria.
Chronic effects	Significant lung effects have been observed in animals following exposure to airborne concentrations of less than 100 mg/m ³ of Carbon black.

Carcinogenicity

Contains potential carcinogens.

ACGIH - Threshold Limit Values - Carcinogens

Carbon black	1333-86-4	A4 - Not Classifiable as a Human Carcinogen
Ethylbenzene	100-41-4	A3 - Confirmed animal carcinogen with unknown relevance to humans.
Ligroine	8032-32-4	A3 - Confirmed animal carcinogen with unknown relevance to humans.
Toluene	108-88-3	A4 - Not Classifiable as a Human Carcinogen
Xylene	1330-20-7	A4 - Not Classifiable as a Human Carcinogen

IARC - Group 2B (Possibly Carcinogenic to Humans)

Carbon black	1333-86-4	Monograph 93 [in preparation], Monograph 65 [1996]
Ethylbenzene	100-41-4	Monograph 77 [2000]

IARC - Group 3 (Not Classifiable)

Toluene	108-88-3	Monograph 71 [1999], Monograph 47 [1989]
Xylene	1330-20-7	Monograph 71 [1999], Monograph 47 [1989]

U.S. - California - Proposition 65 - Carcinogens List

Carbon black	1333-86-4	carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size)
Ethylbenzene	100-41-4	carcinogen, initial date 6/11/04

Mutagenicity

Contains a potential mutagen.

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

Ethylbenzene	100-41-4	72 Hr EC50 Selenastrum capricornutum: 4.6 mg/L; 96 Hr EC50 Selenastrum capricornutum: >438 mg/L
Ligroine	8032-32-4	72 Hr EC50 Selenastrum capricornutum: 4700 mg/L
Toluene	108-88-3	96 Hr EC50 Selenastrum capricornutum: >433 mg/L
Zinc, elemental	7440-66-6	96 Hr EC50 Selenastrum capricornutum: 30 µg/L

Ecotoxicity - Freshwater Fish Species Data

Ethylbenzene	100-41-4	96 Hr LC50 Oncorhynchus mykiss: 11.0-18.0 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 4.2 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas: 7.55-11 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 32 mg/L [static]; 96 Hr LC50 Pimephales promelas: 9.1-15.6 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 9.6 mg/L [static]
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.
Xylene	1330-20-7	96 Hr LC50 Pimephales promelas: 13.4 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 2.661-4.093 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 13.5-17.3 mg/L; 96 Hr LC50 Lepomis macrochirus: 13.1-16.5 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 19 mg/L; 96 Hr LC50 Lepomis macrochirus: 7.711-9.591 mg/L [static]; 96 Hr LC50 Pimephales promelas: 23.53-29.97 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 780 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: >780 mg/L; 96 Hr LC50 Poecilia reticulata: 30.26-40.
Zinc, elemental	7440-66-6	96 Hr LC50 Pimephales promelas: 2.16-3.05 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 0.211-0.269 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas: 2.66 mg/L [static]; 96 Hr LC50 Cyprinus carpio: 30 mg/L; 96 Hr LC50 Cyprinus carpio: 0.45 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio: 7.8 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 3.5 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 0.24 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 0.59 mg/L [semi-static]; 96 Hr LC50 Oncorhynchus mykiss: 0.

Ecotoxicity - Microtox Data

Ethylbenzene	100-41-4	30 min EC50 Photobacterium phosphoreum: 9.68 mg/L; 24 Hr EC50 Nitrosomonas: 96 mg/L
Toluene	108-88-3	30 min EC50 Photobacterium phosphoreum: 19.7 mg/L
Xylene	1330-20-7	24 hr EC50 Photobacterium phosphoreum: 0.0084 mg/L

Ecotoxicity - Water Flea Data

Carbon black	1333-86-4	24 Hr EC50 Daphnia magna: >5600 mg/L
Ethylbenzene	100-41-4	48 Hr EC50 Daphnia magna: 1.8-2.4 mg/L
Toluene	108-88-3	48 Hr EC50 water flea: 11.3 mg/L; 48 Hr EC50 water flea: 310 mg/L; 48 Hr EC50 Daphnia magna: 11.3 mg/L
Xylene	1330-20-7	48 Hr EC50 water flea: 3.82 mg/L; 48 Hr LC50 Gammarus lacustris: 0.6 mg/L
Zinc, elemental	7440-66-6	72 Hr EC50 water flea: 5 µg/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.
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	PAINT
Hazard class	3
UN number	1263
Packing group	II
Additional information:	
Special provisions	59



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

Carbon black	1333-86-4	Challenge Substance
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Canada - WHMIS - Ingredient Disclosure List

Carbon black	1333-86-4	1 %
Ethylbenzene	100-41-4	0.1 %
Ligroine	8032-32-4	1 %
Toluene	108-88-3	1 %

WHMIS classification

Class B - Division 2 - Flammable Liquid, 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.

Issue date

07-Aug-2009

Effective Date

15-Aug-2009

Expiry Date

15-Aug-2012

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Other Information

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