

SAFETY DATA SHEET

1. Identification

Product identifier DEVCON® Flexane® Brushable Resin

Other means of identification

SKU# 6641N

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name ITW Performance Polymers

Address 35 Brownridge Rd
Unit 1
Halton Hills, ON L7G 0C6

Contact person Customer Service

Telephone number 978-777-1100

Fax

E-mail

Emergency telephone number 800-424-9300

Supplier Not available.

2. Hazard identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1A
	Carcinogenicity	Category 2
	Specific target organ toxicity following single exposure	Category 3 narcotic effects
	Specific target organ toxicity following repeated exposure	Category 1
Environmental hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness. Suspected of causing cancer. Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

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. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe mist/vapours. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If experiencing respiratory symptoms: Call a POISON CENTRE/doctor. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.

Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Polyether prepolymer of IPDI, MDI and PICM		N/A	40 - 70
ETHYL ACETATE		141-78-6	15 - 40
4,4'-DIPHENYLMETHANE DIISOCYANATE		101-68-8	3 - 7
ISOPHORONE DIISOCYANATE		4098-71-9	3 - 7
METHYLENE BIS(4-CYCLOHEXYLISOCYANATE)		5124-30-1	1 - 5

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a poison center or doctor/physician.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information

Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. 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. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapour.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.</p> <p>Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.</p>
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist/vapours. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8)	TWA	0.005 ppm
ETHYL ACETATE (CAS 141-78-6)	TWA	400 ppm
ISOPHORONE DIISOCYANATE (CAS 4098-71-9)	TWA	0.005 ppm
METHYLENE BIS(4-CYCLOHEXYLISOC YANATE) (CAS 5124-30-1)	TWA	0.005 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8)	TWA	0.05 mg/m ³
		0.005 ppm
ETHYL ACETATE (CAS 141-78-6)	TWA	1440 mg/m ³
		400 ppm
ISOPHORONE DIISOCYANATE (CAS 4098-71-9)	TWA	0.05 mg/m ³
		0.005 ppm
METHYLENE BIS(4-CYCLOHEXYLISOC YANATE) (CAS 5124-30-1)	TWA	0.05 mg/m ³
		0.005 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8)	Ceiling	0.01 ppm
	TWA	0.005 ppm
ETHYL ACETATE (CAS 141-78-6)	TWA	150 ppm
ISOPHORONE DIISOCYANATE (CAS 4098-71-9)	Ceiling	0.01 ppm
	TWA	0.005 ppm
METHYLENE BIS(4-CYCLOHEXYLISOC YANATE) (CAS 5124-30-1)	Ceiling	0.01 ppm
	TWA	0.005 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8)	TWA	0.005 ppm
ETHYL ACETATE (CAS 141-78-6)	TWA	400 ppm
ISOPHORONE DIISOCYANATE (CAS 4098-71-9)	TWA	0.005 ppm
METHYLENE BIS(4-CYCLOHEXYLISOC YANATE) (CAS 5124-30-1)	TWA	0.005 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8)	Ceiling	0.02 ppm
	TWA	0.005 ppm
ETHYL ACETATE (CAS 141-78-6)	TWA	400 ppm
ISOPHORONE DIISOCYANATE (CAS 4098-71-9)	Ceiling	0.02 ppm
	TWA	0.005 ppm
METHYLENE BIS(4-CYCLOHEXYLISOC YANATE) (CAS 5124-30-1)	Ceiling	0.02 ppm
	TWA	0.005 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8)	TWA	0.051 mg/m3
		0.005 ppm
ETHYL ACETATE (CAS 141-78-6)	TWA	1440 mg/m3
		400 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
ISOPHORONE DIISOCYANATE (CAS 4098-71-9)	TWA	0.045 mg/m ³
		0.005 ppm
METHYLENE BIS(4-CYCLOHEXYLISOC YANATE) (CAS 5124-30-1)	TWA	0.054 mg/m ³
		0.005 ppm

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value
4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8)	15 minute	0.015 ppm
	8 hour	0.005 ppm
ETHYL ACETATE (CAS 141-78-6)	15 minute	500 ppm
	8 hour	400 ppm
ISOPHORONE DIISOCYANATE (CAS 4098-71-9)	15 minute	0.015 ppm
	8 hour	0.005 ppm
METHYLENE BIS(4-CYCLOHEXYLISOC YANATE) (CAS 5124-30-1)	15 minute	0.015 ppm
	8 hour	0.005 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines**Canada - British Columbia OELs: Skin designation**

4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8) Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical respirator with organic vapour cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

Chemical respirator with organic vapour cartridge and full facepiece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance	Liquid.
Physical state	Liquid.
Form	Liquid.
Colour	Colorless
Odour	Solvent.

Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	-83 °C (-117.4 °F) estimated
Initial boiling point and boiling range	77 °C (170.6 °F) estimated
Flash point	-4.4 °C (24.0 °F) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	2 %
Flammability limit - upper (%)	11 %
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	86.32 hPa estimated
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	426.67 °C (800 °F) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	0.98 g/cm ³ estimated
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Oxidising properties	Not oxidising.
Specific gravity	0.98 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidising agents. Alcohols. Amides. Amines. Nitrates. Phenols.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Knowledge about health hazard is incomplete.

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Not known.

Components	Species	Test Results
ETHYL ACETATE (CAS 141-78-6)		
Acute		
Oral		
LD50	Rat	5.6 g/kg
ISOPHORONE DIISOCYANATE (CAS 4098-71-9)		
Acute		
Dermal		
LD50	Rat	1060 mg/kg
Oral		
LD50	Rat	> 1000 mg/kg
METHYLENE BIS(4-CYCLOHEXYLISOCYANATE) (CAS 5124-30-1)		
Acute		
Dermal		
LD50	Rabbit	> 10000 mg/kg
Oral		
LD50	Rat	1065 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitisation

Canada - Alberta OELs: Irritant

ETHYL ACETATE (CAS 141-78-6) Irritant

Canada - British Columbia OELs: Respiratory or skin sensitiser

4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8) Capable of causing respiratory, dermal or conjunctival sensitization.

ISOPHORONE DIISOCYANATE (CAS 4098-71-9) Capable of causing respiratory, dermal or conjunctival sensitization.

METHYLENE BIS(4-CYCLOHEXYLISOCYANATE) (CAS 5124-30-1) Capable of causing respiratory, dermal or conjunctival sensitization.

Canada - Quebec OELs: Sensitizer

4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8) Sensitizer.

ISOPHORONE DIISOCYANATE (CAS 4098-71-9) Sensitizer.

METHYLENE BIS(4-CYCLOHEXYLISOCYANATE) (CAS 5124-30-1) Sensitizer.

Respiratory sensitisation May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

4,4'-DIPHENYLMETHANE DIISOCYANATE (CAS 101-68-8) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - single exposure May cause drowsiness and dizziness.

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Chronic effects Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)
METHYLENE BIS(4-CYCLOHEXYLISOCYANATE) 6.11

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG

UN number UN1139

UN proper shipping name COATING SOLUTION (includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining), Limited Quantity

Transport hazard class(es)

Class 3

Subsidiary risk -

Packing group III

Environmental hazards Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number UN1139

UN proper shipping name Coating solution (includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining), Limited Quantity

Transport hazard class(es)

Class 3

Subsidiary risk -

Packing group III

Environmental hazards No.

ERG Code 3L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

IMDG

UN number UN1139

UN proper shipping name COATING SOLUTION (includes surface treatments or coatings used for industrial purposes such as vehicle under-coating, drum or barrel lining), Limited Quantity

Transport hazard class(es)

Class 3

Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant

No.

EmS

F-E, S-E

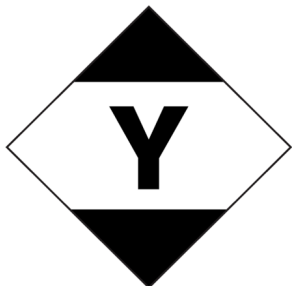
Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

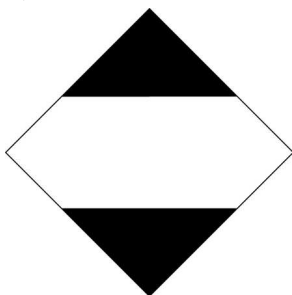
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

IATA



IMDG; TDG



15. Regulatory information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region

Inventory name

On inventory (yes/no)*

Australia

Australian Inventory of Chemical Substances (AICS)

Yes

Canada

Domestic Substances List (DSL)

Yes

Canada

Non-Domestic Substances List (NDSL)

No

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 22-May-2019

Revision date 30-April-2020

Version No. 02

Disclaimer ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

Revision information Hazard identification: Hazard statement
Composition/information on ingredients: Component information
Stability and reactivity: Conditions to avoid
Toxicological information: Aspiration hazard
Toxicological information: Corrosivity
Toxicological information: Mutagenicity
Toxicological information: Reproductivity
Toxicological information: Respiratory sensitisation
Toxicological information: Ingestion
Toxicological information: Skin contact
Toxicological information: Skin contact
Toxicological information: Specific target organ toxicity - repeated exposure
Toxicological information: Specific target organ toxicity - single exposure

SAFETY DATA SHEET

1. Identification

Product identifier DEVCON® Flexane® Brushable Curing Agent

Other means of identification

SKU# 6925N

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name ITW Performance Polymers

Address 35 Brownridge Rd
Unit 1
Halton Hills, ON L7G 0C6

Contact person Customer Service

Telephone number 978-777-1100

Fax

E-mail

Emergency telephone number 800-424-9300

Supplier Not available.

2. Hazard identification

Physical hazards Flammable liquids Category 3

Health hazards Acute toxicity, oral Category 4
Serious eye damage/eye irritation Category 2A
Reproductive toxicity Category 1
Specific target organ toxicity following repeated exposure Category 2

Environmental hazards Not classified.

Label elements



Signal word Danger

Hazard statement Flammable liquid and vapour. Harmful if swallowed. Causes serious eye irritation. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

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. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe mist/vapours. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media to extinguish.

Storage	Store in a well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Propylene glycol methyl ether acetate	1-Methoxy-2-propylacetate	108-65-6	40 - 70
Diethyltoluenediamine		68479-98-1	15 - 40
Carbon Black		1333-86-4	1 - 5
2-Methoxy-1-Propylacetate (impurity)		70657-70-4	0.1 - 1
Other components below reportable levels			3 - 7

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. 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. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapour.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions**7. Handling and storage****Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist/vapours. Do not taste or swallow. Avoid contact with eyes. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
CARBON BLACK (CAS 1333-86-4)	TWA	3 mg/m ³	Inhalable fraction.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
CARBON BLACK (CAS 1333-86-4)	TWA	3.5 mg/m ³

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
2-Methoxy-1-Propylacetate (impurity) (CAS 70657-70-4)	STEL	40 ppm	
	TWA	20 ppm	
CARBON BLACK (CAS 1333-86-4)	TWA	3 mg/m ³	Inhalable
Propylene glycol methyl ether acetate (CAS 108-65-6)	STEL	75 ppm	
	TWA	50 ppm	

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
CARBON BLACK (CAS 1333-86-4)	TWA	3 mg/m ³	Inhalable fraction.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
CARBON BLACK (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
Propylene glycol methyl ether acetate (CAS 108-65-6)	TWA	270 mg/m3	
		50 ppm	

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
CARBON BLACK (CAS 1333-86-4)	TWA	3.5 mg/m3

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value
CARBON BLACK (CAS 1333-86-4)	15 minute	7 mg/m3
	8 hour	3.5 mg/m3

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Chemical respirator with organic vapour cartridge and full facepiece.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing. Use of an impervious apron is recommended.
Respiratory protection	Chemical respirator with organic vapour cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Viscous. Liquid.
Physical state	Liquid.
Form	Viscous. Liquid.
Colour	Black.
Odour	Pungent.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	46.0 °C (114.8 °F) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.

Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	2.44 hPa estimated
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.06 g/cm3 estimated
Explosive properties	Not explosive.
Flammability class	Combustible II estimated
Oxidising properties	Not oxidising.
Specific gravity	1.06 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Knowledge about health hazard is incomplete.
Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
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Information on toxicological effects

Acute toxicity	Harmful if swallowed.
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Components	Species	Test Results
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Carbon Black (CAS 1333-86-4)

Acute

Oral

LD50	Rat	> 8000 mg/kg
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Skin corrosion/irritation	Due to partial or complete lack of data the classification is not possible.
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Serious eye damage/eye irritation	Causes serious eye irritation.
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Respiratory or skin sensitisation

Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
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Skin sensitisation	Due to partial or complete lack of data the classification is not possible.
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Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.
Carcinogenicity	Due to partial or complete lack of data the classification is not possible.
ACGIH Carcinogens	
Carbon Black (CAS 1333-86-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Canada - Manitoba OELs: carcinogenicity	
Carbon Black (CAS 1333-86-4)	Confirmed animal carcinogen with unknown relevance to humans.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Carbon Black (CAS 1333-86-4)	2B Possibly carcinogenic to humans.
US. National Toxicology Program (NTP) Report on Carcinogens	
Carbon Black (CAS 1333-86-4)	Known To Be Human Carcinogen.
Reproductive toxicity	May damage fertility or the unborn child.
Specific target organ toxicity - single exposure	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	Due to partial or complete lack of data the classification is not possible.
Chronic effects	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG	
UN number	UN1139
UN proper shipping name	COATING SOLUTION (includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining), Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
IATA	
UN number	UN1139
UN proper shipping name	Coating solution (includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining), Limited Quantity
Transport hazard class(es)	
Class	3

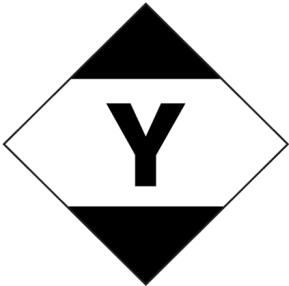
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

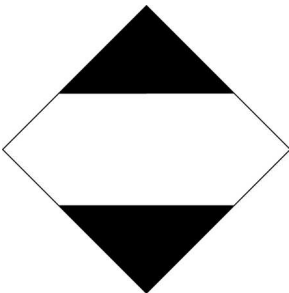
UN number	UN1139
UN proper shipping name	COATING SOLUTION (includes surface treatments or coatings used for industrial purposes such as vehicle under-coating, drum or barrel lining), Limited Quantity
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-E
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

IATA



IMDG; TDG



15. Regulatory information

Canadian regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 22-May-2019

Revision date 30-April-2020

Version No. 02

Disclaimer ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

Revision information This document has undergone significant changes and should be reviewed in its entirety.