

422B

Safety Data Sheet

Section 1: Product and Company Identification

Product Identifier and Other Means of Identification

Product Identifier: Silicone Modified Conformal Coating**Other Means of Identification:** Not available**Related Part #** 422B-55ML, 422B-1L, 422B-4L, 422BPX-4L, 422B-20L, 422B-20LTH, 422B-200L

Recommended Use and Restriction on Use

Use: Conformal coating**Uses Advised Against:** Not applicable

Details of Manufacturer or Importer

ManufacturerMG Chemicals
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA

	+1-800-340-0772
FAX	+1-800-340-0773
E-MAIL	support@mgchemicals.com
WEB	www.mgchemicals.com

E-MAIL (Competent Person): sds@mgchemicals.com

Emergency Phone Number



For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents)
USA or CANADA—Call Verisk 3E at **+1-866-519-4752** or **+1-760-476-3962**
(Service access code: 335388)**For emergencies involving the transport of dangerous goods;** 24/7 service
CANADA—Call CANUTEC collect at **+1-613-996-6666** or ***666** on cellular phones

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Section 2: Hazards Identification
Classification of Hazardous Chemical
GHS Categories

Criteria	Category	Signal Word	Pictograms
Flammable Liquid	2	Danger	Flame
Aspiration Hazard	1	Danger	Health
Specific Target Organ Toxicity Repeated Exposure	2	Warning	Health
Reproductive Toxicity	2	Warning	Health
Carcinogenicity	2	Warning	Health
Eye irritation	2	Warning	Exclamation
Skin irritation	2	Warning	Exclamation
Specific Target Organ Toxicity Single Exposure	3	Warning	Exclamation
Hazardous to the Aquatic Environment Chronic	3	none	none


Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity), which is opposite to HMIS and NFPA conventions. Severity category rankings do not allow comparisons between classes.

Label Elements

Signal Word	DANGER
Pictograms	Hazard Statements
	H225: Highly flammable liquid and vapor
	H304: May be fatal if swallowed and enters airways H373: May cause damage to organs (inner ear, liver) through prolonged or repeated exposure H361: Suspected of damaging fertility or the unborn child H351: Suspected of causing cancer

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Pictogram	Hazard Statements
	H315: Causes skin irritation H319: Causes serious eye irritation H336: May cause drowsiness and dizziness
No Symbol Mandated	H412: Harmful to aquatic life with long lasting effects
Prevention	Precautionary Statements
P102	Keep out of reach of children.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
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, and lighting equipment.
P243	Take precautionary measures against static discharge.
P260	Do not breathe mist, vapors, or spray.
P271	Use only outdoors or in a well-ventilated area.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves, protective clothing, eye protection, and face protection.
P273	Avoid release to the environment.

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Response	Precautionary Statements
P370 + P378	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish.
P308 + P313	IF exposed or concerned: Get medical advice or attention.
P301 + P310, P331	IF SWALLOWED: Immediately call a Poison Center or doctor. Do NOT induce vomiting.
P303 + P361 + P352	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with plenty of water.
P332 + P313	If skin irritation occurs: Get medical advice or attention.
P363	Wash contaminated clothing before reuse.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical attention.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTRE or doctor if you feel unwell.
Storage	Precautionary Statements
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
Disposal	Precautionary Statements
P501	Dispose of contents in accordance to local, regional, national, and international regulations.

Hazards Not Otherwise Classified

Other Criteria	Hazard Statements/Precautionary Statement	Signal Word	Pictograms
Defats skin	Repeated exposure may cause skin dryness or cracking.	Not applicable	Not applicable

422B**Section 3: Composition/Information on Ingredients**

CAS #	Chemical Name	%(weight)
67-64-1	acetone	41%
1330-20-7	xylene (mixed isomers)	19–22%
108-65-6	1-methoxy-2-propanol acetate	4–6%
100-41-4	ethylbenzene	4–5%
108-88-3	toluene	<0.5%

Section 4: First Aid Measures

<i>Exposure Condition</i>	<i>GHS Code: Precautionary Statement</i>
IF ON SKIN (or hair)	P303 + P361 + P352, P332 + P313, P363, P308 + P313
Immediate Symptoms	redness, dry skin, irritation
Response	Take off immediately all contaminated clothing. Wash with plenty of water or shower. If skin irritation occurs: Get medical advice or attention. Wash contaminated clothing before reuse. IF exposed or concerned: Get medical advice or attention.
IF SWALLOWED	P301 + P310, P331, P308 + P313
Immediate Symptoms	burning sensation, abdominal pain, nausea, vomiting, headaches, dizziness, drowsiness
Response	Immediately call a Poison Center or doctor. Do NOT induce vomiting. IF exposed or concerned: Get medical advice or attention.
IF IN EYES	P305 + P351 + P338, P337 + P313
Immediate Symptoms	redness, severe irritation, pain, blurred vision
Response	Rinse cautiously with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

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IF INHALED	P304 + P340, P312, P308 + P313
Immediate Symptoms	<i>irritation of the respiratory track, cough, dizziness, drowsiness, headaches (in extreme exposure cases: nausea, unconsciousness)</i>
Response	Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing. If feeling unwell: Call a doctor. If exposed or concerned: Get medical advice or attention.

Section 5: Fire Fighting Measures

Extinguishing Media	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. Use water spray to cool containers.
Specific Hazards	The vapors are heavier than air and may accumulate in low-lying areas. Vapors may travel long distances and ignite at an ignition source, which can cause a flashback or an explosion. Prevent fire-fighting wash from entering waterway or sewer system.
Combustion Products	Produces carbon oxides (CO, CO ₂).
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

Section 6: Accidental Release Measures

Personal Protection	See personal protection recommendations in Section 8.
Precautions for Response	Remove or keep away all sources of extreme heat or open flames. Do not breathe mist, vapors, or spray.
Environmental Precautions	Avoid releasing to the environment. Prevent spill from entering drains and waterways.
Containment Methods	Contain with inert and non-flammable absorbent (such as soil, sand, vermiculite).
Cleaning Methods	Collect liquid in a sealable, solvent-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wash spill area with soap and water to remove the last traces of residue. RECOMMENDATION: Use a grounded stainless steel or carbon steel container.
Disposal Methods	Dispose of spill waste according to Section 13.

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Section 7: Handling and Storage**Prevention**

Keep out of reach of children.

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.

Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Take precautionary measures against static discharge.

Do not breathe mist, vapors, or spray. Use only outdoors or in a well-ventilated area. Keep container tightly closed.

Avoid release to the environment.

Handling

Wash hands thoroughly after handling.

Wear protective gloves, protective clothing, eye protection, and face protection.

Take off immediately all contaminated clothing and wash it before reuse.

Storage

Store in a well-ventilated place. Keep cool.

Store locked up.

Section 8: Exposure Controls/Personal Protection**Substances with Occupational Exposure Limit Values**

Chemical Name	Country/ Provinces	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
acetone	ACGIH	500 ppm	750 ppm
	U.S.A. OSHA PEL	1 000 ppm	Not established
	Canada AB	500 ppm	750 ppm
	Canada BC	250 ppm	500 ppm
	Canada ON	500 ppm	750 ppm
	Canada QC	750 ppm	1 000 ppm

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Chemical Name	Country/ Provinces	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
xylene (mixed isomers)	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	100 ppm 100 ppm 100 ppm 100 ppm 100 ppm 100 ppm	150 ppm Not established 150 ppm 150 ppm 150 ppm 150 ppm
1-methoxy-2- propanol acetate	ACGIH U.S.A. OSHA PEL U.S.A. California ^{a)} Canada AB Canada BC Canada ON Canada QC	Not established Not established 100 ppm Not established 50 ppm 50 ppm Not established	Not established Not established 150 ppm Not established 75 ppm Not established Not established
ethylbenzene	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	20 ppm 100 ppm 100 ppm 20 ppm (2B) 100 ppm 100 ppm	Not established Not established 125 ppm Not established 125 ppm 125 ppm
toluene	ACGIH U.S.A. OSHA PEL Canada AB Canada BC Canada ON Canada QC	20 ppm 200 ppm 50 ppm 20 ppm 20 ppm 100 ppm	Not established 300 ppm Not established Not established Not established 150 ppm

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from suppliers' SDS were also consulted. Short term exposure limits (STEL) are for 15 min and long-term permissible exposure limits (PEL) for 8 h.

(2B) Carcinogen

a) California Code of Regulations, Title 8, Section 5155. Airborne Contaminants. Can be absorbed through skin.

Engineering Controls

Ventilation

Keep airborne concentrations below the occupational exposure limits (OEL).

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422B**Personal Protective Equipment****Eye protection**

Wear appropriate protective eyeglasses or chemical safety goggles.

RECOMMENDATION: Use safety glasses with lateral protection (side shields).

Skin Protection

For likely contacts, use of protective butyl rubber, fluorinated rubber, or other chemically resistant gloves.

For incidental contacts, nitrile, neoprene, PVC, or other chemically resistant gloves.

Respiratory Protection

For over-exposures up to 10 x OEL of mist, vapors, or spray, wear respirator such as a half-mask respirator with organic vapor cartridges.

Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.

RECOMMENDATION: Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be fitted to the employee by a professional. Ensure vapor cartridges are stored in sealed plastic bags when not being used.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

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Section 9: Physical and Chemical Properties

Physical State	Liquid	Lower Flammability Limit ^{b)}	1%
Appearance	Clear	Upper Flammability Limit ^{b)}	13%
Odor	Ethereal	Vapor Pressure @20 °C	Not available
Odor Threshold	Not available	Vapor Density	>2 (Air = 1)
pH	Not available	Relative Density @25 °C	0.89
Freezing/Melting Point	Not available	Solubility in Water	Partially miscible
Initial Boiling Point ^{a)}	≥56 °C [≥133 °F]	Partition Coefficient n-octanol/water	Not available
Flash Point ^{a)}	-17 °C [1.4 °F]	Auto-ignition Temperature ^{c)}	≥315 °C [≥599 °F]
Evaporation Rate	Fast	Decomposition Temperature	Not available
Flammability	Highly Flammable	Viscosity @40 °C	<20.5 mm ² /s

a) Values for flash point and other threshold based on acetone

b) Calculated using Raoult's Law and Le Chatelier Principle

c) Values for based on the component with the lowest auto-ignition value

Section 10: Stability and Reactivity

Reactivity	Not available
Chemical Stability	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Avoid flames, sparks, other ignition sources and incompatible substances.
Incompatibilities	Avoid oxidizing agents, strong acids, and strong bases.
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5.

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Section 11: Toxicological Information**Summary of Effects and Symptoms by Routes of Exposure**

Skin	May cause redness, skin irritation, or dry skin.
Ingestion	May cause burning sensation, abdominal pain, nausea, vomiting (see also inhalation symptoms).
Inhalation	May cause irritation of the respiratory track, cough, dizziness, drowsiness, headaches, (<i>in extreme exposure cases: unconsciousness and death</i>).
Eyes	May cause redness, serious eye irritation, pain, and blurred vision.
Chronic	<p>Prolonged or repeated exposure may cause skin dryness and cracking, defat skin, and local redness and discomfort.</p> <p>Chronic inhalation exposure may affect the central nervous system and lead to hearing loss with co-exposure to loud noises.</p> <p>Ingestion or inhalation of paint material, mist, or vapor during pregnancy may increase the chances fetal death and developmental defects.</p>

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
acetone	5 800 mg/kg Rat	20 mL/kg Rabbit	16 000 ppm 6 h Rat
xylene (mixed isomers)	4 350 mg/kg Rat	>5 000 mg/kg Rabbit	5 000 ppm 4 h Rat
1-methoxy-2-propanol acetate	8 532 mg/kg Rat	>5 g/kg Rabbit	Not available
ethylbenzene	3 500 mg/kg Rat	>5 000 mg/kg Rabbit	35 500 mg/m ³ 2 h Mouse
toluene	636 mg/kg Rat	12 124 mg/kg Rabbit	49 g/m ³ 4 h Rat

Note: Toxicity data from the ECHA database was consulted. The data from supplier SDSs were also consulted.

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422B**Other Toxicological Effects****Skin corrosion/irritation**

Causes a skin irritation based on Draize tests on animals.

Serious eye damage/irritation

Causes severe eye irritation based on Draize tests on animals.

Sensitization
(allergic reactions)

Based on available data, the classification criteria are not met.

Carcinogenicity
(risk of cancer)**Ethylbenzene [CAS# 106-41-4]**

IARC Group 2B: Possibly carcinogenic to humans

ACGIH A3: Confirmed animal carcinogen with unknown relevance to humans

CA Prop 65: Listed as a carcinogen

NTP: Not listed

Mutagenicity
(risk of heritable genetic effects)

Based on available data, the classification criteria are not met.

Reproductive Toxicity
(risk to sex functions)

At high doses, spermatogenesis was observed in male rat by inhalation of toluene.

Teratogenicity
(risk of fetus malformation)

Fetotoxicity is observed in animal studies for inhalation and oral exposures for toluene.

STOT-single exposure

Acetone, xylene, 1-methoxy-2-propanol acetate, and toluene can affect the central nervous system by inhalation causing drowsiness or dizziness.

STOT-repeated exposure

Contains toluene, which is a Cat 2 STOT repeated exposure hazard for the central nervous system and cochlear systems.

Toluene and xylenes are ototoxic chemicals according to rat studies: inhalation exposure in the presence of noise may lead to cochlear impairment.

Aspiration hazard

The liquid content is classified as Cat 1 aspiration hazards. The mixture containing more than 10% Class 1 aspiration toxicant and having a viscosity <20.5 mm²/s.

422B**Section 12: Ecological Information**

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<http://echa.europa.eu>), and other reliable sources.

Acetone is not classifiable as an aquatic toxicant. Acetone has a minimal LC50 96 h of 5 540 mg/L for *Oncorhynchus mykiss* (rainbow trout); EC50 48 h 13 500 mg/L *Daphnia magna* (water flea).

Xylene isomers mixture are expected to be acute category 2 environmental toxicant with minimal LC50 of 2.5 mg/L for fish.

The 1-methoxy-2-propanol acetate component is an acute category 3 environmental toxicant with minimal LC50 96 h of ≥ 100 mg/L *Salmo gairdneri*.

Ethylbenzene is an acute category 2 environmental toxicant with minimal LC50 of 4.2 mg/L for *Oncorhynchus mykiss* (rainbow trout); 2.9 mg/L 48 h *Daphnia magna* (water flea).

Toluene is an acute category 2 environmental toxicant. It is rapidly biodegradable and has a minimal LC50 of 7.63 mg/L for *Oncorhynchus mykiss* (rainbow trout); 8.9 mg/L 24 h *Daphnia magna* (water flea); 10 mg/L 24 h *Pseudokirchneriella subcapitata* (green algae).

Acute Ecotoxicity

See chronic ecotoxicity.

Chronic Ecotoxicity

Category 3

Harmful to aquatic life with long lasting effects.

Avoid release to the environment.

Biodegradability

Solvents are expected to be biodegradable. The volatile solvent constituents will oxidize rapidly in air by photochemical reaction.

Other Effects

Regulated Volatile Organic Content (VOC) = 32% (289 g/L)

Section 13: Disposal Information

Dispose of contents in accordance with all local, regional, national, and international regulations.

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Section 14: Transport Information

Ground

Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations);
USA DOT 49 CFR (Parts 100 to 185) **Regulations.**

Sizes 5 L and under
422B-55ML, 422B-1L, 422B-4L,
422BPX-4L

Limited Quantity



Sizes greater than 5 L
422B-20L, 422B-20LTH, 422B-200L

UN number: UN1263
Shipping Name: PAINT
Class: 3
Packing Group: II
Marine Pollutant: No



Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Sizes 0.5 L and under
422B-55ML

Limited Quantity

Total Net QTY per
package 1 L



Sizes up to 5 L (Passenger), 60 L (Cargo)
422B-1L, 422B-4L, 422BPX-4L,
422B-20L, 422B-20LTH, 422B-200L

UN number: UN1263
Shipping Name: PAINT
Class: 3
Packing Group: II
Marine Pollutant: No



Sea

Refer to IMDG regulations.

Sizes 5 L and under
422B-55ML, 422B-1L, 422B-4L,
422BPX-4L

Limited Quantity

Packing Instr. P001



Sizes greater than 5 L
422B-20L, 422B-20LTH, 422B-200L

UN number: UN1263
Shipping Name: PAINT
Class: 3
Packing Group: II
Marine Pollutant: No



Note: Shipper must be appropriately trained and certified before involvement with the transport of dangerous goods.

422B**Section 15: Regulatory Information****Canada****Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)**

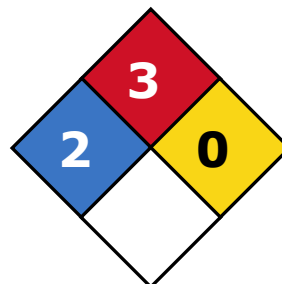
All hazardous ingredients are listed on the DSL/NDSL.

Hazardous Products Act (R.S.C., 1985, c. H-3)

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

USA**Other Classifications****HMIS[®] RATING**

HEALTH:	* 2
FLAMMABILITY:	3
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA[®] 704 CODES

Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product contains xylenes, ethylbenzene, and toluene that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains ethylbenzene (CAS# 100-41-4; reportable quantity = 1 000 lb), xylene (CAS# 1330-20-7, reportable quantity = 100 lb), and toluene (CAS# 108-88-3; reportable quantity = 1 000 lb), which are subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

This product contains acetone (CAS# 78-93-3, reportable quantity = 5 000 lb), which can be subject to the CERCLA reporting requirements.

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422B**TSCA** (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, USA).

This product contains ethylbenzene (CAS# 100-41-4), which is listed as a carcinogen.

This product contains toluene, which is listed as reproductively toxic.

Europe**RoHS** (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

WEEE (Waste Electrical and Electronic Equipment Directive)

This product is not a piece of electrical or electronics equipment and is therefore not governed by this regulation.

Section 16: Other Information

Prepared by the	Regulatory Affairs Department
Date of Revision	24 April 2024
Supersedes	03 November 2023
Reason for Changes:	Update to revision date.

Reference

1) ACGIH 2024 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2024).

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422B**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
ECHA	European Chemicals Agency
EU	European Union
EC50	Half maximal effective concentration
EL50	Half maximal effective loading
IARC	International Agency for Research on Cancer
NOELR	No observable effect loading ratio
NTP	National Toxicology Program
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

Technical Queries Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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