



SAFETY RECALL BULLETIN

SUBJECT: CROSS MEMBER CORROSION – SAFETY RECALL CAMPAIGN			No: SR-16-003
			DATE: August, 2016
			MODEL: SEE BELOW
CIRCULATE TO:	<input checked="" type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY PROCESSOR	<input checked="" type="checkbox"/> SALES MANAGER

PURPOSE

This bulletin provides directions for inspection and repair of affected vehicles' cross members.

BACKGROUND

The inside and outside surfaces of the front cross members used on certain vehicles, if exposed long term to snow melt water and anti-freezing agents, may corrode due to insufficient performance of the rust protection. Should significant corrosion occur over time, a lower control arm could eventually become detached resulting in loss of vehicle control and a potential collision.

AFFECTED VEHICLES

2002–2007 Lancer*, Lancer Wagon*, Lancer Evolution*

2003–2006 Outlander*

2007–2013 V6 Outlander*

*Currently or ever registered in Connecticut, Delaware, Illinois, Indiana, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, Wisconsin, and Washington D.C.

IMPORTANT

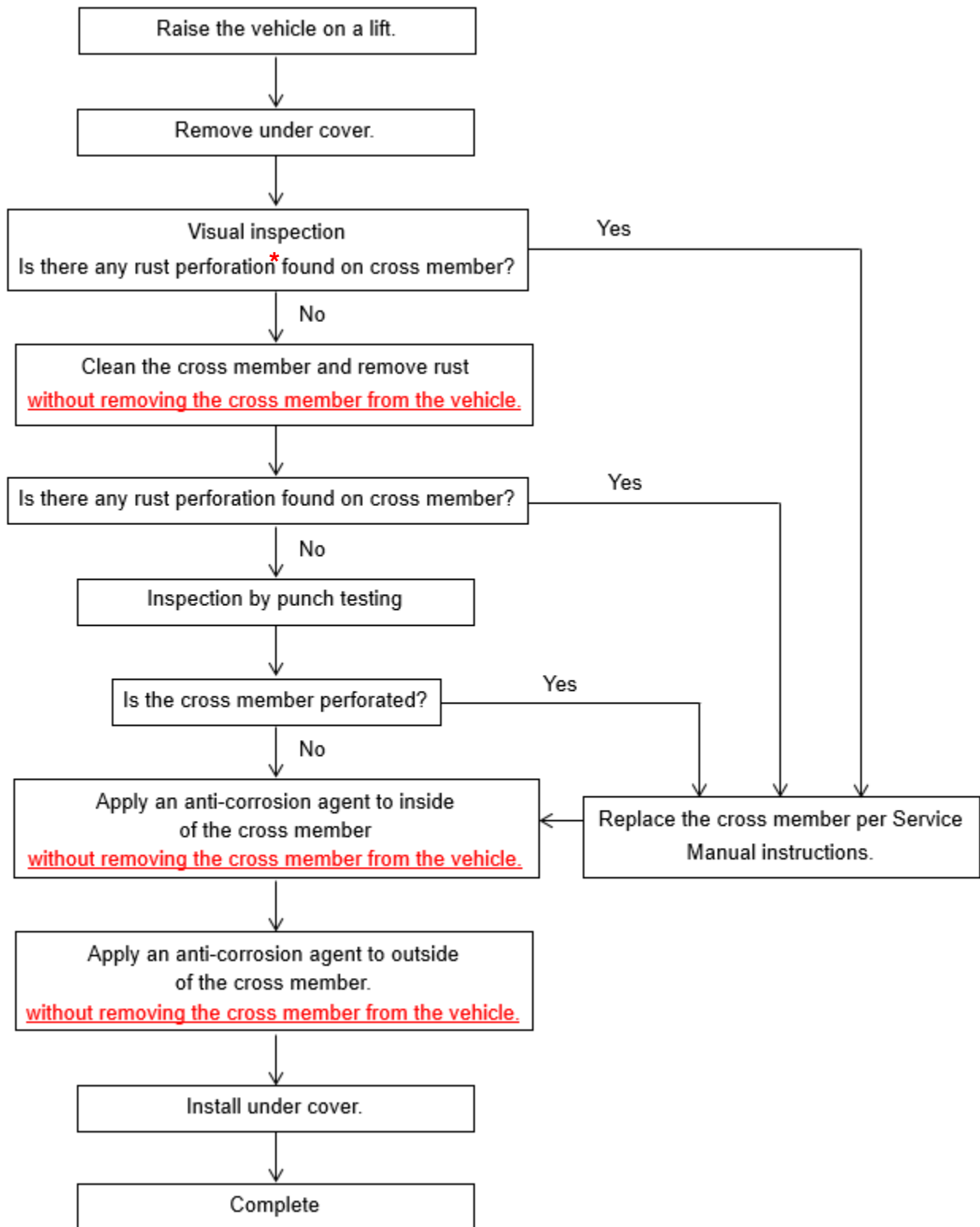
Affected new or used inventory vehicles must be repaired before the vehicle is delivered. Dealers must check their inventory vehicles' VINs on the Warranty Superscreen to verify whether the vehicle is involved in this recall campaign. It is a violation of Federal law for a dealer to deliver a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by the notification under a sale or lease until the defect or noncompliance is remedied.

NOTE: If you encounter a vehicle which has excessive cross member corrosion, but is not covered under this campaign (i.e., never registered in a salt belt state), contact your DPSM for further directions.

REQUIRED EQUIPMENT

Name	Part Number
Anti-corrosion agent (for internal application) (NOX-RUST 712AM)	MZ341024EX
Spray Gun (for internal application)	MZ341023EX
Anti-corrosion agent (for external application) (THREE RUSTER TB6154D)	MZ320800
Air regulator	MIT577640
Air coupler	
Gloves, Safety glasses, Respirator (N95)	
Air compressor, Air gun	
Masking material (e.g., cardboard, masking paper)	
Scraper, Chisel, Flat-head screwdriver, Wire brush	
Punch, String, Hammer (1 lb)	

FLOW CHART



*Perforation means a hole or a series of holes.

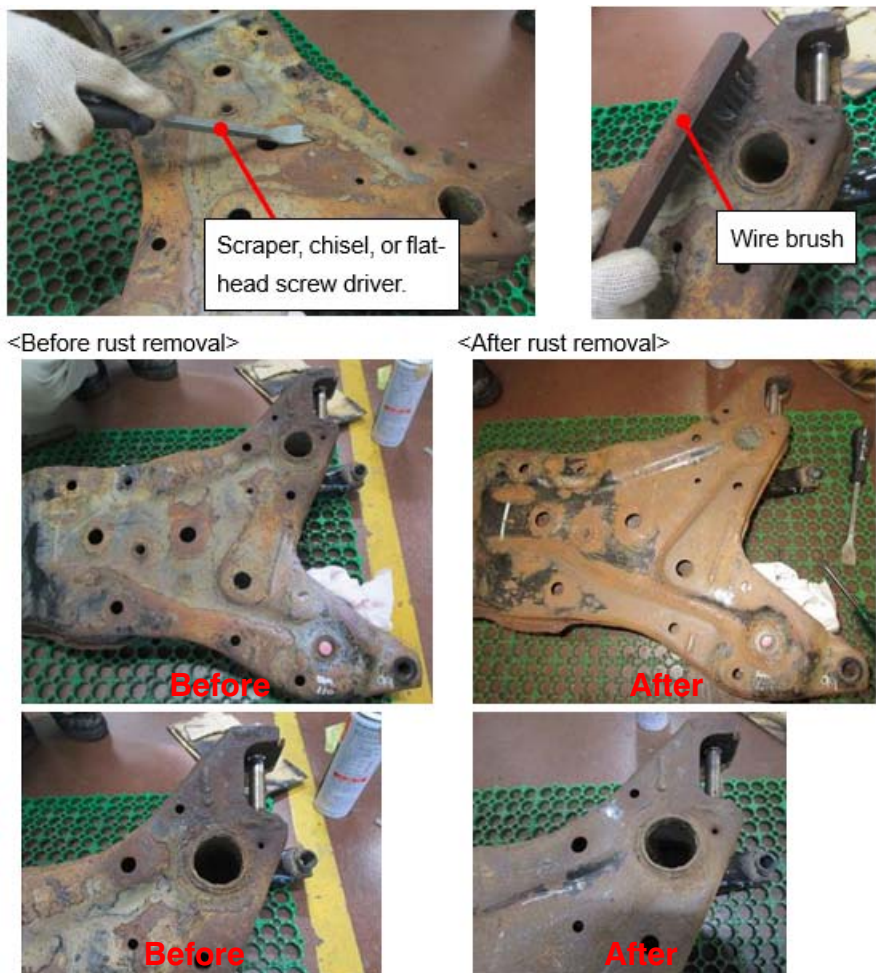
INSPECTION PROCEDURE

1. Raise the vehicle.
2. Remove under cover clips and under cover.

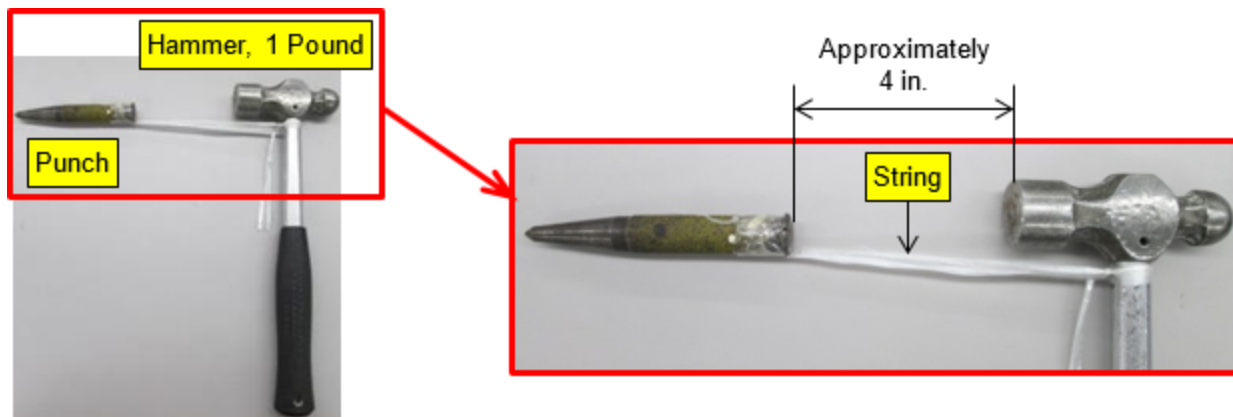
CAUTION Wear safety glasses, respirator, and gloves when cleaning the cross member.

3. Clean the cross member and remove rust without removing the cross member from the vehicle.
 - a. Use compressed air to blow off any dirt, mud, or water from outside and inside of the cross member. If necessary, pressure spray stubborn mud or debris and dry thoroughly.
 - b. Remove loose rust and rust scales from the external surface of the cross member by using a scraper, chisel, or flat-head screw driver.
 - c. Use compressed air to blow off any remaining rust or dirt debris.
 - d. If rust perforation is found, **proceed to the cross member replacement and application of anti-corrosion agent to both inside and outside of the replacement cross member.** If no perforation is found, proceed to Step 4.

NOTE: Cross member removed from vehicle for illustration purposes.



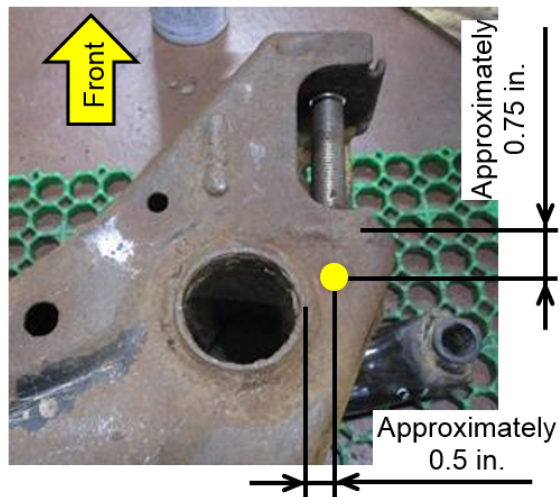
4. Perform the punch test.
 - a. Prepare punch and hammer.



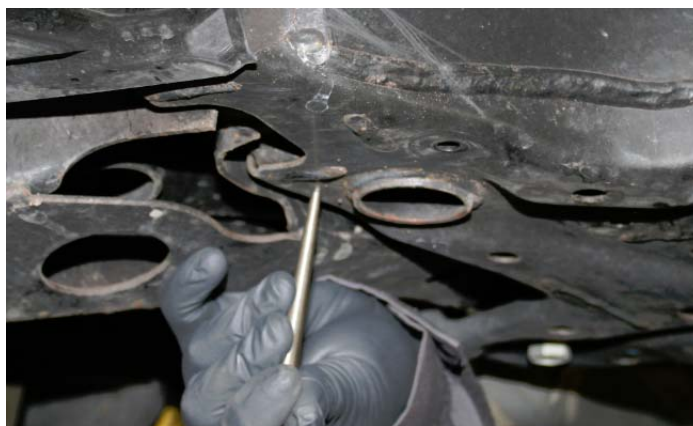
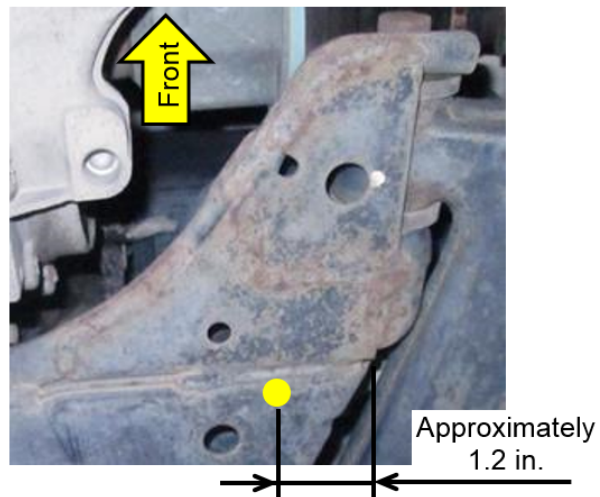
- b. Tie the punch and hammer with a string so that they are approximately 4 in. apart.
 - c. Place the punch on the points shown below and strike the punch (5) times with the hammer. If the cross member becomes perforated, proceed to cross member replacement and application of anti-corrosion agent to both inside and outside of the replacement cross member.

NOTE: Cross member removed from vehicle for illustration purposes.

07-13MY Outlander (V6 Engine)

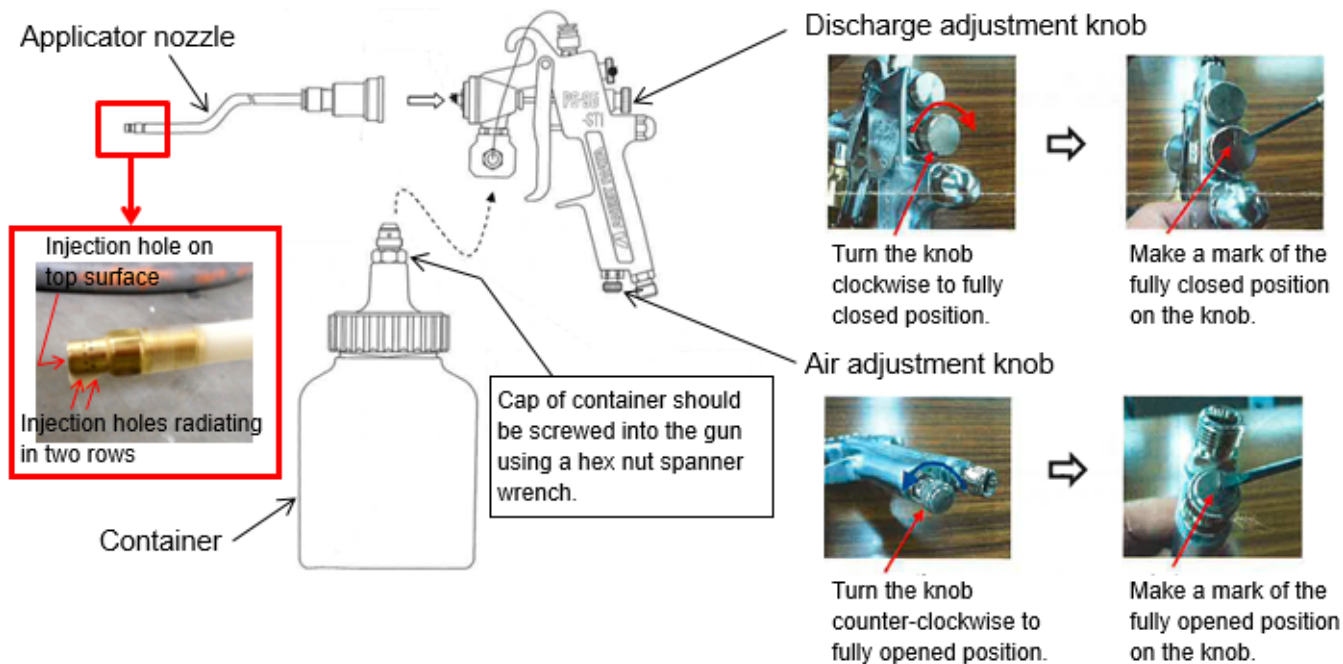


03-06MY Outlander / 02-07MY Lancer

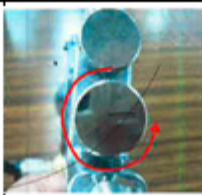




Application of anti-corrosion agent – NOX-RUST 712AM – to the inside of the cross member.

1. Prepare the spray gun for NOX-RUST 712AM (“NOX-RUST”) internal application.
 - a. Assemble the spray gun as illustrated:



- b. Set zero—point of discharge and air adjustment knobs.
- c. Remove the cap of the container and fill the container with NOX-RUST.
- d. Reattach cap.
- e. Attach the air regulator and hose to the gun.
- f. Adjust the discharge and the air adjustment knobs.

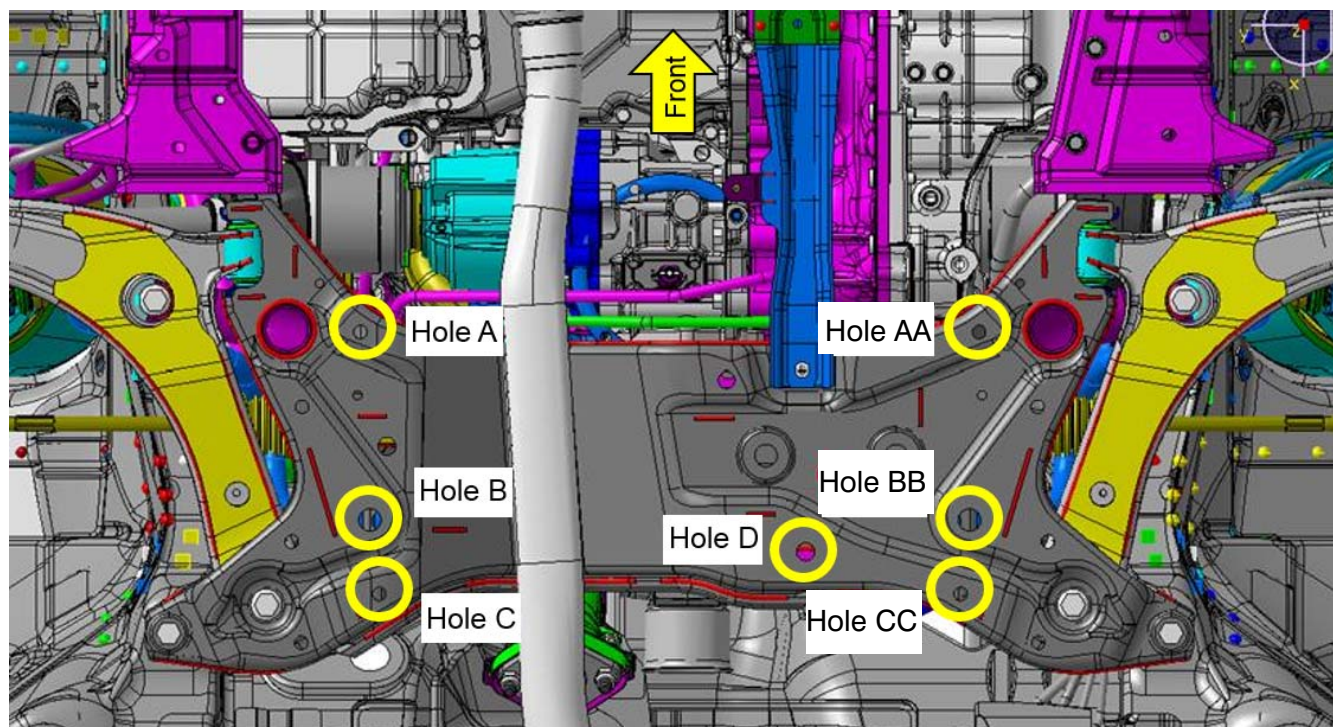
Discharge adjustment knob		Open from fully closed position 1/2 turn (in summer) to 4 turns (in winter)
Air adjustment knob		Close from fully opened position 1 turn

Compressor air pressure		51 PSI (350 KPa) (in summer) to 71 PSI (490 KPa) (in winter) Never exceed 71 PSI.
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NOTE: “Summer” is ambient temperature of 86 Degrees Fahrenheit (> 30 Degrees Celsius) or higher.
“Winter” is ambient temperature of 50 Degrees Fahrenheit (< 10 Degrees Celsius) or lower.

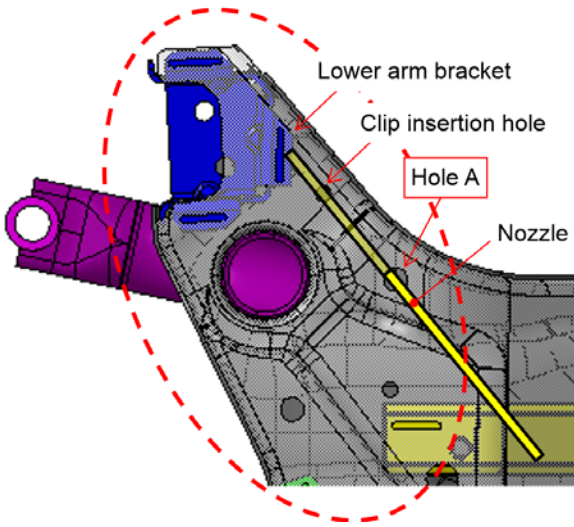
- g. Test the spray gun by fully pulling on the trigger to confirm that the NOX–RUST is sprayed.
2. Without removing the cross member from the vehicle, insert the applicator nozzle into each of the holes illustrated and spray according to the respective vehicle models.

2007–2013 V6 Outlander



CAUTION Wear safety glasses, respirator, and gloves when spraying NOX–RUST.

- a. Insert the nozzle through hole **A** in the direction shown below until it contacts the lower arm bracket. Confirm that the nozzle has been fully inserted by looking through the clip insertion hole.

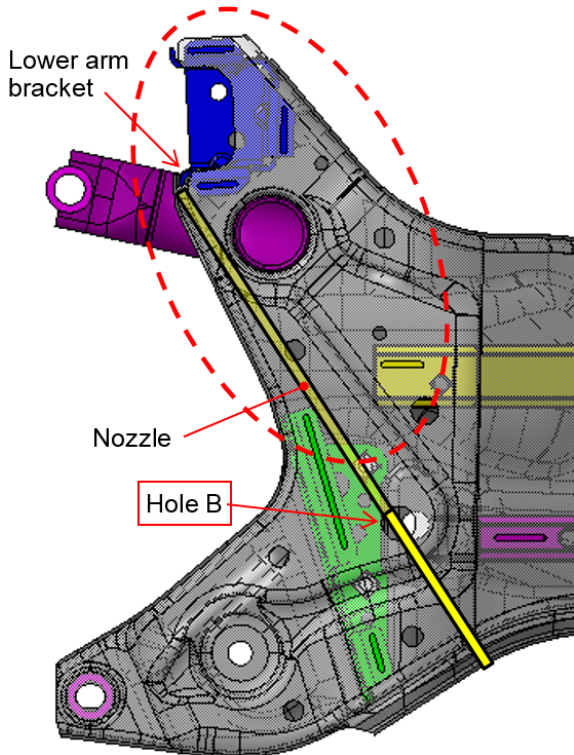


- b. Spray NOX-RUST with full trigger pull for 5 seconds, then continue spraying while removing the nozzle. It should take between 3–5 seconds to fully remove the nozzle.

NOTE: Ensure that the dashed oval area is fully coated.

- c. Repeat for hole **AA**.

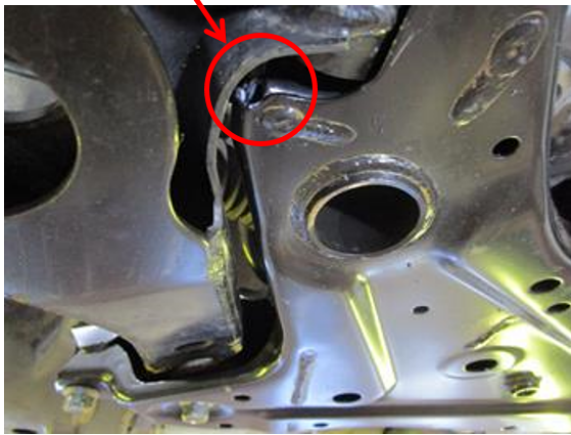
- d. Insert the nozzle through hole **B** in the direction shown below until it contacts the lower arm bracket. (Insertion length: 9.5 in.) Confirm that the nozzle has been fully inserted by looking through the lower arm bracket opening.



- e. Spray NOX-RUST with full trigger pull until NOX-RUST begins to leak out of the lower arm bracket opening, then continue spraying while removing the nozzle. It should take about 5 seconds to fully remove the nozzle.

NOTE: Ensure that the dashed oval area is fully coated.

Lower Arm Bracket Opening



Example: Lower arm bracket opening.



Example: NOX-RUST leakage from cross member.

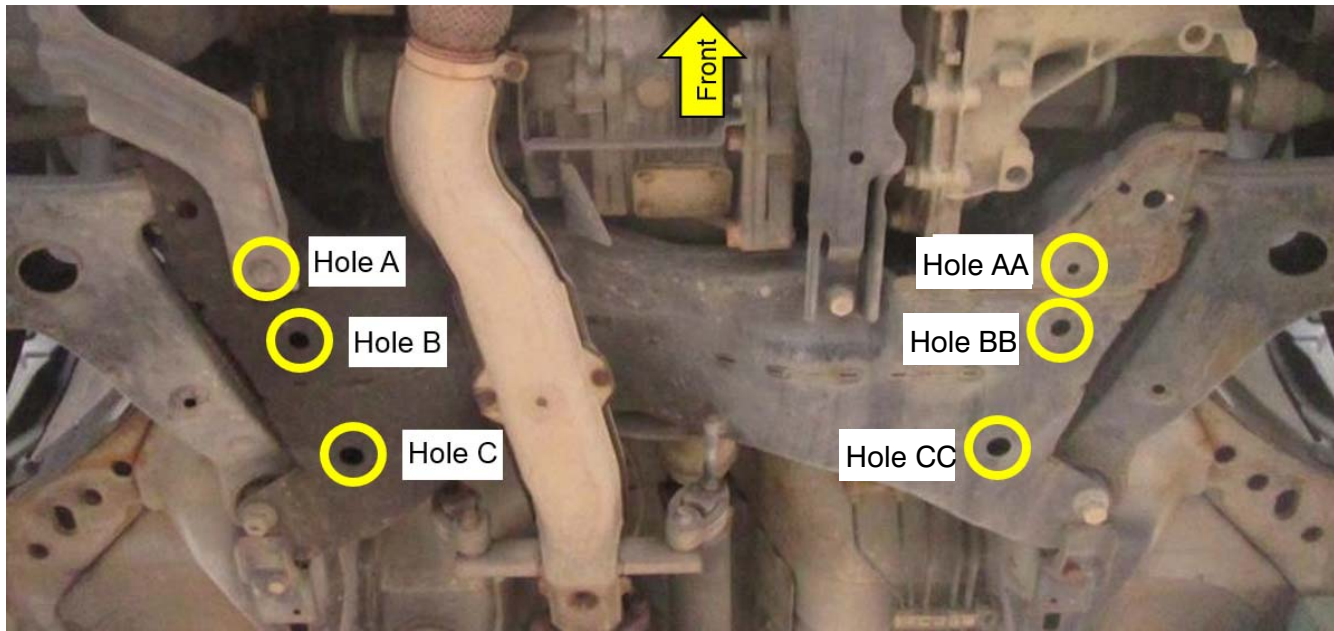
f. Repeat for hole **BB**.



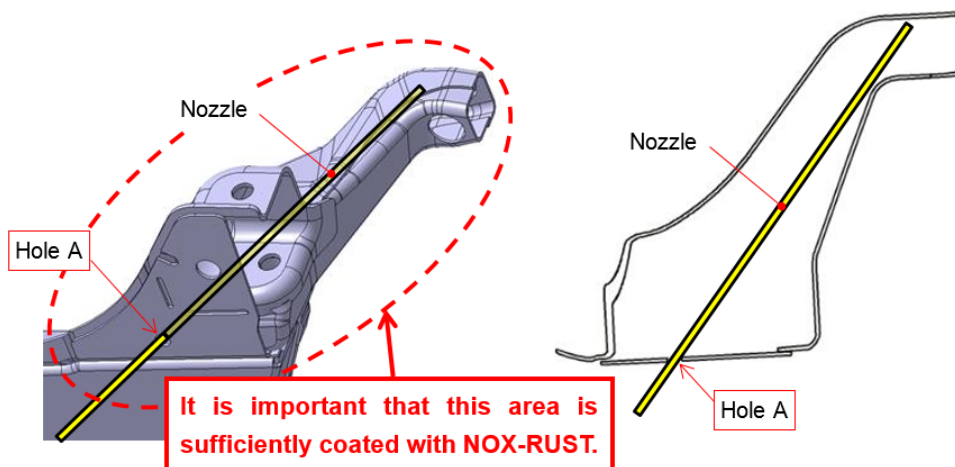
g. Insert applicator nozzle approximately 1 in. into hole **C** and spray with full trigger pull while moving the applicator nozzle in a circular motion for 10 seconds, to ensure proper, even coverage.

h. Repeat for holes **CC** and **D**.

2003–2006 Outlander / 2002–2007 Lancer



3. Insert the nozzle approximately 10 in. into hole **A**, as illustrated below, until it reaches the top of the body bracket. Spray NOX–RUST with full trigger pull for 5 seconds, then continue to spray while removing the nozzle. It should take approximately 5 seconds to remove the nozzle.
4. Repeat for hole **AA**.





5. Insert applicator nozzle approximately 1 in. into hole **B** and spray with full trigger pull while moving the applicator nozzle in a circular motion for 10 seconds, to ensure proper, even coverage.
6. Repeat for holes **BB**, **C**, and **CC**.

CLEANING THE SPRAY GUN

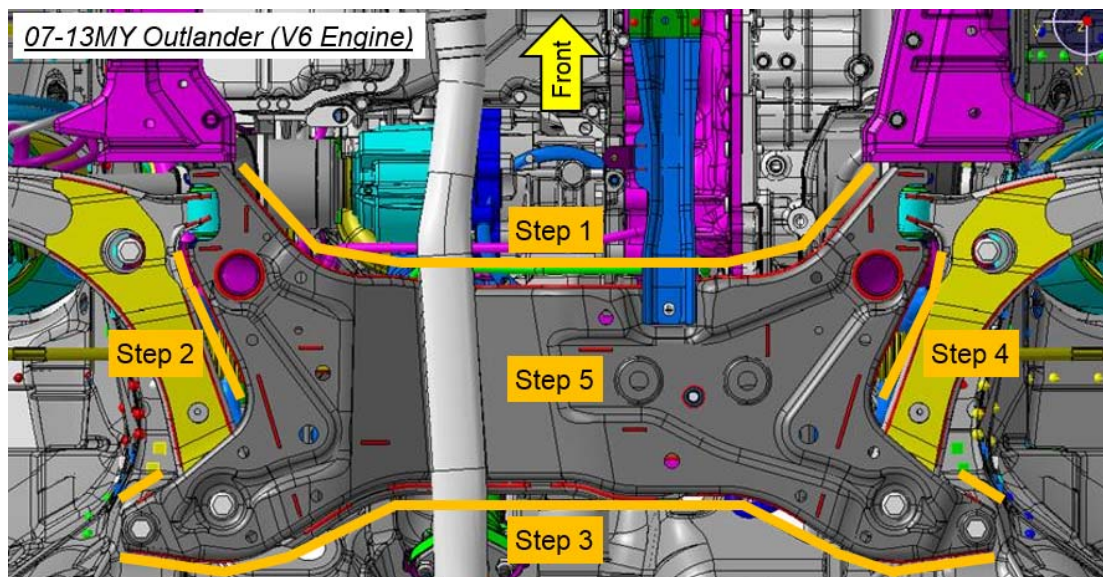
With the discharge adjustment knob fully closed, spray air to eject traces of remaining wax in the hose and nozzle. If the spray gun will not be used for more than one week, fill the container with kerosene and spray to clean out the gun and associated spraying components.

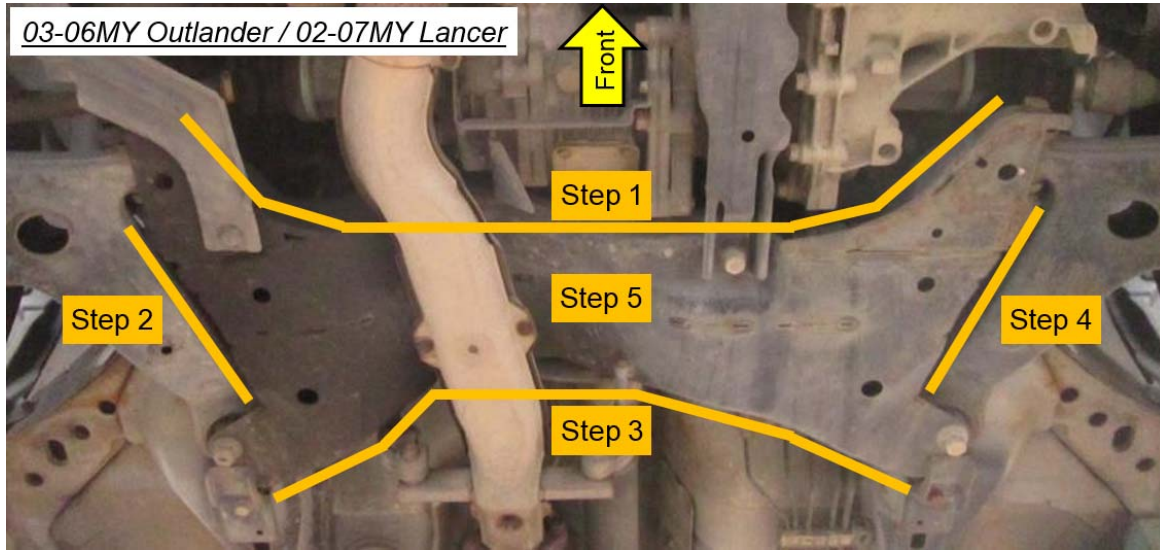
Application of anti-corrosion agent – THREE RUSTER TB6154D – to the outside of the cross member.



CAUTION Wear safety glasses, respirator, and gloves when spraying THREE RUSTER.

1. Mask rubber components such as suspension bushings, brake hoses, steering gear box boots and drive shaft boots, and exhaust pipe to prevent THREE RUSTER TB6154D (“THREE RUSTER”) from coming into contact with these components.





a. Step 1: Front surface.

NOTE: Mask steering gear box boots, drive shaft boots and exhaust pipe.



b. Step 2 / Step 4: Right side surface / Left side surface.

NOTE: Mask steering gear box boots, suspension bushings, drive shaft boots and brake hoses.





c. Step 3 / Step 5: Rear surface / Bottom surface.

NOTE: Mask exhaust pipe.



2. Hold the spray nozzle approximately 4 to 8 in. away from the cross member surface and apply THREE RUSTER in the illustrated order. Move the spray at a rate of 8 in./sec. Repeat, if necessary, to ensure proper coverage of THREE RUSTER.

PARTS INFORMATION

Use only the Genuine Mitsubishi Parts listed below.

Anti-corrosion agent application:

Part Description	Part #	Part Name	Vehicles/Qty.
Anti-corrosion agent (internal application)	MZ341024EX	NOX-RUST 712AM (Use with spray gun)	5 vehicles per can
Anti-corrosion agent (external application)	MZ320800	THREE RUSTER TB6154D (Aerosol)	5 vehicles per can
Spray Gun	MZ341023EX	DO NOT CLAIM	—
Regulator	MIT577640	DO NOT CLAIM	—

NOTE: Dealers will be charged for the spray gun and air regulator on their parts statement. **Dealers will be reimbursed, by the end of August, for the initial spray gun and air regulator shipment on a Warranty Claim created by MMNA.** No dealer action is required for this reimbursement. Additional spray gun or air regulators can be purchased at dealer's expense.

Cross member and related parts:

Model	Engine	Part #	Description	Qty./Vehicle
07-13MY Outlander (V6 Engine)	6B3	MW400207	C/MBR ASSY,FR SUSPENSION	1
		MR529712	GASKET	2
		MR529711	GASKET	1
		1575A082	RING,SEAL	1
02-07MY Lancer, Lancer Wagon	4G69-FED	MW400208	CROSSMEMBER ASSY,FRONT	1
		MB687021	GASKET	1
		MB687002	GASKET	1
	4G69-CAL	MW400208	CROSSMEMBER ASSY,FRONT	1
		MR450702	RING,SEAL	1
		MB687002	GASKET	1
4G9	MW400208	CROSSMEMBER ASSY,FRONT	1	
	MR529712	GASKET	1	
	MB687002	GASKET	1	
03-04MY Lancer Evolution	4G63-T/C	MW400211	C/MBR,F/SUSP	1
		MR450703	RING,SEAL	1
		MB687004	GASKET	1
05-06MY Lancer Evolution	4G63-T/C	MW400211	C/MBR,F/SUSP	1
		MR450703	RING,SEAL	1
		MR529714	GASKET	1
03-06MY Outlander (2WD)	4G69-FED	MW400209	CROSSMEMBER ASSY,FRONT	1
		MB687021	GASKET	1
		MB687002	GASKET	1
	4G69-CAL	MW400209	CROSSMEMBER ASSY,FRONT	1
		MR450702	RING,SEAL	1
		MB687002	GASKET	1

Model	Engine	Part #	Description	Qty./Vehicle
03-06MY Outlander (4WD)	4G69-FED	MW400210	CROSSMEMBER ASSY,FRONT	1
		MB687021	RING,SEAL	1
		MB687002	GASKET	1
	4G69-CAL	MW400210	CROSSMEMBER ASSY,FRONT	1
		MR450702	RING,SEAL	1
		MB687002	GASKET	1

NOTE: FED: Federal specification (excludes California); CAL: California specification

WARRANTY INFORMATION

#	Repair Procedure	Campaign Operation	Labor Time (hrs.)	Repair Description
1	All Involved Vehicles	C1609R01	0.9	Inspect cross member for corrosion – If OK, apply anti-rust agents
2	All Involved (except 07-13 Outlander V6)	C1609R02	3.2	Inspect cross member for corrosion – If NG, replace cross member and then apply anti-rust agents
	Only 2007-2013 Outlander with V6 engine	C1609R03	3.4	

Warranty / Recall Campaign Claim Information

Enter all claims as claim type 'C' – Recall/Campaign Claims

Please follow these campaign instructions. A claim example is provided below.

Certain-

2002-2007 MY Lancer, Lancer Wagon, Lancer Evolution

2003-2006 MY Outlander

2007-2013 MY Outlander (V6 only)

NOTE: Always check the Superscreen to verify vehicle involvement.

Required Operation to be performed

Operation Lbr Time

1. All Involved:

Inspect for corrosion = OK Apply anti-rust agents C1609R01 0.9 hrs.

2. All (except 2007-13 Outlander V6):

Inspect for corrosion = NG Replace cross member & apply anti-rust agents C1609R02 3.2 hrs.

3. Only 2003-2007 Outlander with a V6

Inspect for corrosion = NG Replace cross member & apply anti-rust agents C1609R03 3.4 hrs.

MITSUBISHI DEALER LINK		Service Warranty Warranty Claim		Help	
Claim Entry		Vehicle Information		e-Reports	
DMS Interface		PQR/VQR			
Campaign Information					
Campaign Operation No	C1609R	<p>This campaign is for inspecting the front cross member for corrosion and applying anti-rust agents when no corrosion is found, or replacement of the cross member and applying anti-rust agents when corrosion is found.</p> <p>Check the Open Campaign area of the <u>Superscreen</u> each time to be certain of a vehicle's eligibility. Only VINs showing <u>C1609R</u> as open are involved.</p>			
Miles/Km	100,500				
VIN	JA				
Service Technician					
Spec Value *		Duplicate Recall *	<input type="checkbox"/>		
Dealer:	99320	Ref No:		VIN:	
Claim No:		Adj:		Claim Status:	Incomplete
		Model and Year:			
		Save & Continue		Main Menu	

LABOR AND PARTS

Labor:

There are only 2 possible repair scenarios for this campaign.

Scenario 1

Inspect = OK – then still must apply the 2 anti-rust agents only.

Scenario 2

Inspect = applicable corrosion – then replace cross member and specified related specified parts and apply the 2 anti-rust agents.

Parts:

Both scenarios require the application of the 2 anti-rust agents.

Only Scenario 2, requires the replacement of the cross member and specified related parts.

Each can of the anti-rust agents is enough to do 5 vehicles. Thus, the dealer net price for each of the materials is priced at dealer net divided by 5 and will be reflected automatically when entering the parts costs on the related recall campaign claim. Dealers will receive markup based on the per vehicle material prices.

RENTAL CARS:

If there is a need to provide the owner with a rental car or to claim return freight charges, claim the applicable charges in this section of the claim on the lower portion of the labor entry screen.

Select	Labor Operation	Labor Operation Description		Amount
<input type="checkbox"/>	SHO	SPECIAL HANDLING ORDER	SHO Parts Order <input type="text"/>	<input type="text"/>
<input type="checkbox"/>	RENTACAR	RENTAL CAR CHARGES	Days <input type="text"/> Reason <small><Select one></small> <input type="text"/>	<input type="text"/>
			Rental Company <input type="text"/> Invoice Number <input type="text"/>	<input type="text"/>
<input type="checkbox"/>	95300040	FREIGHT CHARGES	Freight Company <input type="text"/> Invoice Number <input type="text"/>	<input type="text"/>
<input type="checkbox"/>	95200040	TOWING CHARGES	Towing Company <input type="text"/> Invoice Number <input type="text"/>	<input type="text"/>

REPLACED PARTS:

Replaced parts must be held for at least 10 days beyond the recall claim payment date unless requested to be returned to MMNA. Return requested parts as you would any return requested warranty replaced part.



IMPORTANT SAFETY RECALL

Mitsubishi Motors North America, Inc.

6400 Katella Avenue
Cypress, CA 90630
Telephone: 714-372-6000
www.mitsubishicars.com

This notice applies to your vehicle, _____.

Date: August, 2016

Dear FIRSTNAME LASTNAME,

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

Reason for interim notice: Mitsubishi Motors North America, Inc. (MMNA) has decided that a defect which relates to motor vehicle safety exists in certain 2002 – 2007 Lancer, 2004 Lancer Wagon, 2003 – 2006 Lancer Evolution, 2003 – 2006 Outlander, and 2007 – 2013 V6 Outlander vehicles operated in cold weather states where road salt is used. The inside and outside surfaces of the front cross members used on certain vehicles, if exposed long term to snow melt water and anti-freezing agents, may corrode due to insufficient performance of the rust protection.

Should significant corrosion occur over time, a lower control arm could eventually become detached resulting in loss of vehicle control and a potential collision.

MMNA intends to repair your vehicle free of charge (parts and labor). However, the parts that may be required to provide a permanent remedy for this condition are currently not available.

MMNA is making every effort to obtain these parts as quickly as possible, and will contact you again by mail with a follow-up recall notice when the remedy parts are available.

What you should do:

Once you receive your follow-up notice in the mail advising that parts are available, simply contact your local Authorized Mitsubishi Motors dealer and schedule an appointment to have the repair performed. In the interim, if you believe that your vehicle's cross member exhibits excessive corrosion, you may schedule an appointment with your local Authorized Mitsubishi Motors dealer to have it inspected.

If you have any questions, please contact the Mitsubishi Customer Relations Department at **888-648-7820**. Hours: Monday through Friday 7 a.m. to 4 p.m. (Pacific Time)

If, after contacting Mitsubishi Customer Relations, you still have a problem getting this repair made within a reasonable time frame and/or without charge, you may submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, D.C. 20590, or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153), or go to <http://www.safercar.gov>.

If you have already encountered a problem with excessive cross member corrosion and had it repaired or replaced as a result of this specific condition and have paid for the repair, you may send your original repair order or invoice **and** original receipt/proof of payment to the following address for reimbursement consideration:

Mitsubishi Customer Relations Department, P.O. Box 6400, Cypress, CA 90630-0064

If you are the lessor of this vehicle, please forward a copy of this notice to the lessee within ten days to comply with federal regulations.

We appreciate your prompt attention to this matter.

Sincerely,

Mitsubishi Motors North America, Inc.

C1609R

Skin Sensitizer	Not classified
Germ Cell Mutagenicity	Not classified
Carcinogenicity	Not classified
Toxic to Reproduction	Not classified
Specific Target Organ Toxicity following Single Exposure	Classification not possible
Specific Target Organ Toxicity following Repeated Exposure	Classification not possible
Aspiration Hazard	Category 1
Acute Hazards to the Aquatic Environment	Not classified
Chronic Hazards to the Aquatic Environment	Not classified

GHS Labeling Element

Pictogram



Signal Word Danger

Health Hazard Statements

Cause mild skin irritation /eye irritation
May be fatal if swallowed and enters airways

Prevention Precautionary Statements

If swallowed: Immediately call a doctor/physician. Do NOT induce vomiting.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists, get medical advice/attentions.
If skin irritation occurs, get medical advice/attentions.
If you feel unwell, call a doctor/physician.
Store locked up.
Commission to dispose of contents/container by a professional waste disposal processor authorized by local/regional/national authorities.

SECTION-3

COMPOSITION / INFORMATION ON INGREDIENTS

Single Entity or Compound	: Compound
Chemical Name	: Petroleum Hydrocarbon, Natural Vegetable Fat and Additives
Composition	: Liquid Paraffin < 60 %
	: Natural Vegetable Fat < 19 %
	: Rust Preventive Additive > 21 %
Structural Formula	: Cannot be specified
Official Gazette Index Number	: Trade Secret as proprietary

CAS Number	: Compound	
	Trade Secret as proprietary	
Labor Safety Hygiene Act	: Paraffin Wax	5.0 – 10 %
Pollutant Release and Transfer Register	: N/A	
Fire Services Act	: Hazardous material Class 4 Group 4 Petroleum Oil (Non-soluble)	

SECTION-4 FIRST AID MEASURES

Eye Contact	: Immediately flush eyes with running water for at least 15 minutes. If irritation persists, seek immediate medical attention.
Skin Contact	: Wash skin with soap and water, and apply skin conditioning cream. Wash contaminated clothing before reuse.
Inhalation	: Remove victim to fresh air and rest covering with blanket. If necessary, get medical attention. If not breathing, slacken clothing to ensure respiratory tract and give artificial respiration.
Ingestion	: Do not induce vomiting. Get immediate medical attention. If the mouth is contaminated, flush away the contamination with water.
Expected immediate and delayed symptoms, most important symptoms/effects	: If swallowed, irritate mucous membrane of stomach and may cause vomiting, stomach pain or diarrhea. If swallowed and enters lung, may cause internal hemorrhage in lung organ, pulmonary dropsy or chemical pneumonia.

SECTION-5 FIRE FIGHTING MEASURES

Extinguishing Media	: Water fog, foam, dry powder or carbon dioxide fire extinguisher are useful. Never use shaft of water.
Specific hazards arising from the chemical	: Easily combustible and ignite by heat, spark or flame. : Heat may cause explosion of the container.
Specific Fire Fighting Instructions	: Extinguish the source of fire. : For initial fire, Use dry powder or carbon dioxide fire extinguisher. : For large fire, form fire extinguisher is useful to cut off the air supply. Water may enlarge the fire and increase the risk. : Use water to cool off peripheral equipment.
Protection or Firefighters	: When firefighting, wear proper protection apparatus and stay upwind. Isolate hazard area and deny entry.

SECTION-6 ACCIDENTAL RELEASE MEASURES

Personal Protections, Protective Equipment and Emergency Procedure	: Remove fire hazards and stop the leak. Keep unnecessary people away and deny entry by cordoning off the hazardous area. Prepare fire extinguishing equipment. Wear protection apparatus. When spilled indoors, ventilate well by opening windows and doors.
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- Environmental Precautions : Never run off into sewerage and avoid occurrence of secondary hazard or environmental pollution.
When spilled at sea, contain spill with oil fence enclosure and take up with absorption mat. When applying chemicals, comply with the technical standards specified in the directives of the Ministry of Land.
- Encapsulate, Neutralization, Encapsulation and Cleanup : For small spills, wipe up with absorbent materials such as earth, sand, sawdust or rags. For large spills, contain spill with banking, cover liquid with foam and place into containers.
- Secondary Hazards : Report a fire station the place of spillage and the hazards information relevant to the material.

SECTION-7 HANDLING AND STORAGE

Handling

- Technical Measures and Precautions : Avoid contact with flame, sparks or high heat sources and avoid emission of vapor.
When taking out of the container, use pump and never suck up with mouth using capillary tube.
Do not handle the container roughly such as overturning or giving shock.
Every time after use, keep container tightly closed.
- Safety Handling Precautions : When handling more than specified quantity, handle at manufacturing plant, warehouse or handling place compliant with the law.
Take precautionary measures against static discharge and use conductive clothing of work suit and shoes. Wear protectors, if possible contact with eyes and skin is anticipated.
For handling volatile petroleum products that fall under a category set forth by the Regulation on Prevention for Chemical Hazards or the Regulation on Prevention for Organic solvent Poisoning, it is mandatorily required to furnish protective installations such as total shut-in system and local ventilators.

Storage

- Conditions for Safe Storage : Use electrical appliances of non-sparking type in storage place and ground appliances.
- Technical Measures and Precautions : Protect from sunlight and store in a well-ventilated place.
Store with indication of danger.
Avoid buildup of heat, spark, flame or static electricity.
- Incompatible Materials : Keep away from hazardous materials of other kinds such as halogen, strong acid, alkaline and oxidants.
- Materials of Container : Recommendable to use safety container materials specified by the Fire Protection Law.

SECTION-8 EXPOSURE CONTROLS / PERSONAL PROTECTION

- Occupational Exposure Limits : No occupational exposure limits established on Petroleum Hydrocarbon.
(Working Environment Evaluation Standards : Ministry of Health, Labor and Welfare Notification, No. 26 of March 27, 1995)

Permissible Exposure Limits	: Japan Association on Industrial Health (2004 Version)
	: 3 mg/m ³ (as Mineral Oil mist)
	ACGIH (2004 version) TWA: 5 mg/m ³ (as Oil mist)
Protective Installations	: When the mist and vapor are generated, the source is made to seal up or provide adequate local ventilation indoors and washing facility for washing exposed skin areas on the work site.
Protectors	1. Respiratory Protection : Generally not required. If needed, use gas mask (for organic gas).
	2. Eye Protection : Use safety glasses, if splashing is anticipated.
	3. Hand Protection : Use oil proof gloves for prolonged and/or frequent contact.
	4. Protective Clothing : Use oil proof clothing with long sleeves for prolonged contact.

SECTION-9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Yellowish brown Viscous liquid
Odor	: Fat and Oil
pH	: No data
Coagulation Point	: Below 10
Boiling Point °C	: Over 250
Flash Point °C	: 210 (lower limit)
Explosive Limit	: Upper Limit : 7%, Lower Limit : 1% (estimated)
Vapor Pressure Pa 50 °C	: 1.1x10 ⁻¹
Vapor Density	: No data
Density g/cm ³	: 0.90 - 1.00
Solubility (H ₂ O)	: Poorly soluble
n-octanol-water partition coefficient	: No data
Auto-flammability Temp. °C	: No data
Decomposition Temperature °C	: No data

SECTION-10 STABILITY AND REACTIVITY

Stability	: Stable to acid and alkali under normal temperature and pressure. Chemically inert.
Possibility of Hazardous Reactions	: Avoid contact with excessive heat or oxidizing agent.
Conditions to Avoid	: Sunlight, Heat, Fire, High Temperature, Spar, Static Discharge and other Ignition Sources
Incompatible Materials	: Avoid contact with halogen, strong acid, alkaline and oxidizing Materials
Hazardous Decomposition Products	: Carbon Monoxide

SECTION-11 TOXICOLOGY INFORMATION

Acute Toxicity	: Oral-rat LD ₅₀ , over 5 g/kg (estimated) (Liquid Paraffin)
Skin Corrosion/Irritation	: Liquid has slight irritation to skin.
Serious Eye Damage/Irritation	: High density vapor (ab. over 1000ppm) or mist has irritation to eyes.
Respiratory or Skin Sensitization	: No useful information available as of now.
Germ Cell Mutagenicity	: No useful information available as of now.

Carcinogenicity	: (Evaluation by OHSA) It has classified on IARC as "4. Possibly not carcinogenic to humans." : (Evaluation by EU) It is not necessary to classify as carcinogen.
Reproductive Toxicity	: No useful information available as of now
STOT-single exposure	: No useful information available as of now
STOT-repeated exposure	: No useful information available as of now
Aspiration Hazard	: No useful information available as of now
Other Hazard Information	(including emitting hazardous gas in reaction with water) : No useful information available as of now ① When ingest, may cause diarrhea or vomiting. ② When get in eye, may cause inflammation. ③ When contact with skin, may cause irritation. ④ When inhale mist, may feel unwell.

SECTION-12 ECOLOGICAL INFORMATION

VOC Concentration g/L	: 10.45
Ecotoxicity	: No useful information available as of now
Aquatic	: No useful information available as of now
Other Data	: No useful information available as of now
Persistence and Degradability	: No useful information available as of now
Bioaccumulative Potential	: No useful information available as of now
Mobility in Soil	: No useful information available as of now

SECTION-13 DISPOSAL CONSIDERATIONS

Waste Residues	: It is the responsibility of the user to dispose of wastes on their own, or to determine compliance status with all applicable requirements prior to disposal at authorized disposers or local authority. : Prohibited to discard. : When filling waste oil in ground, combust in incinerator. It is required to ensure that content of heavy metals in the burnt residue be less than the level specified by the Prime Minister's Office Directive. : When incinerating, perform at a safety place in such a way as not to cause harm or damage with incineration or explosion with vigilance.
Contaminated Packaging	: When disposing of empty containers, dispose after removing thoroughly the content.

SECTION-14 TRANSPORT INFORMATION

United Nations Number : N/A

1. Transport the container without aggressive friction or vibration.
2. When transporting a quantity exceeding the normality on a vehicle, display an indicator on the vehicle pursuant to the Ministry of Home Affairs Directives and equip with a fire extinguishing appliance

appropriate to the corresponding dangerous substance.

3. Indicate "No Fire" and name of material, quantity and grade of danger on the outer surface of container.
4. Prohibit combined transportation with hazardous materials or high pressure gas that fall under Fire Protection Law Class 1 and 6.
5. For surface transportation, limit the stack height no higher than 3 meters.

SECTION-15 REGULATORY INFORMATION

- | | |
|---|--|
| 1. Labor Safety Hygiene Act | : Subject to reporting |
| 2. Regulation on Prevention for Organic Solvent Poisoning | : N/A |
| 3. MARPOL | : Oil Emission Control (prohibited) |
| 4. Fire Protection Law | : Hazardous, Class 4 Petroleum 4 (Non-soluble) |
| 5. Regulation on Disposal and Cleaning of Wastes | : Subject to the regulation of industrial wastes |
| 6. Pollutant Release and Transfer Register | : N/A |
| 7. Water Pollution Control Law | : Oil Emission Control (permissible concentration 5mg/l) Extracted as n-hexane |
| 8. Sewerage Law | : Regulations on Discharge of Mineral Oils (5mg/l) |

SECTION-16 OTHER INFORMATION

1. Guidance for Making MSDS (Japan Chemical Industry Association)
 2. Hazard Data Book (Fire and Disaster Management Agency, Jan. 1993)
 3. Guidance for Making Petrochemical Product Safety Data Sheet (Federal Association of Petrochemical, Feb. 1997)
 4. IARC Monographs on the Evaluation of Carcinogenic Risk to Humans : Vol. 45
 5. Chemical Substances Safety Data Sheet (JIS Z 7253:2012)
 6. Dangerous Hazard Data Book (Shozou Mitamura, 2007. 05. 20)
 7. Chemical Substance Regulations Handbook for Practitioner (2007)
 8. Study Text for Making GHS compliant MSDS on Mixtures (Japan Industrial Safety & Health Association)
-

The information presented in this Safety Data Sheet is intended to provide useful information for users to secure safety handling and processing of hazardous chemicals, and is not intended to provide any warranty for safety and nor to guarantee any particular property. Users should make their own investigations to determine the suitability of the information or products for their particular purpose. Nothing contained herein is intended as permission, inducement or recommendation to violate any laws.

SAFETY DATA SHEET



Date Prepared : 02/16/2016
SDS No : 0016-02-2016
Date-Revised : 05/16/2016
Revision No : 1

ThreeBond6154D (480ml) Aerosol

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ThreeBond6154D (480ml) Aerosol
PRODUCT DESCRIPTION: Maintenance for automobile
PRODUCT CODE: ThreeBond6154D

DISTRIBUTOR

ThreeBond International, Inc.
6184 Schumacher Park Drive
West Chester, OH 45069
Emergency Phone: (513) 779-7300

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (Domestic North America):(800) 424 - 9300
CHEMTREC (International):(703) 527 - 3887

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Specific target organ toxicity after single exposure: (Anesthetic effect), Category 3
Acute Toxicity (Inhalation), Category 4
Carcinogenicity, Category 1A
Specific target organ toxicity after single exposure,, Category 3

Physical:

Flammable Liquids, Category 3
Flammable Aerosols, Category 1

GHS LABEL



Flame



Exclamation
mark



Health
hazard

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H226: Flammable liquid and vapour.
H222: Extremely flammable aerosol.
H336: May cause drowsiness or dizziness.
H229: Pressurized container: may burst if heated.
H332: Harmful if inhaled.
H350: May cause cancer

Precautionary statement(s)

Prevention:

P211: Do not spray on an open flame or other ignition source.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting/mixing equipment.
P242: Use non-sparking tools.

ThreeBond6154D (480ml) Aerosol

P243: Take action to prevent static discharges.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251: Do not pierce or burn, even after use.

P271: Use only outdoors or in a well-ventilated area.

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

Response:

P370+P378: In case of fire: Use water, waterspray, foam, or sand to extinguish.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312: Call a POISON CENTER/Doctor/Medical Pprofessional if you feel unwell.

P308+P313: IF exposed or concerned: Get medical advice/ attention.

Storage:

P405: Store locked up.

P403+P235: Store in a well-ventilated place. Keep cool.

P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Disposal:

P501: Dispose of contents/container to appropriate landfill according to local regulations.

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: Flammable liquid; May cause irritation to the eyes, skin or respiratory tract; May be harmful if swallowed

POTENTIAL HEALTH EFFECTS

EYES: May cause eye irritation

SKIN: May cause skin irritation

INGESTION: May be harmful if swallowed; Ingestion is an unlikely route of entry in industrial uses

INHALATION: May cause irritation to the nose, throat, and respiratory tract.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Dimethyl ether	40 - 50	115-10-6
Isoparaffin	25 - 35	
Anti-corrosive additive	15 - 25	
Nonane	1 - 10	111-84-2
Solid paraffin	1 - 10	
Mineral Oil	< 1	x0xxxxxx
Carbon black	< 1	1333-86-4

4. FIRST AID MEASURES

EYES: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.

SKIN: Immediately flush skin with plenty of water while removing contaminated clothing. Wash skin with soap and plenty of water. Thoroughly wash or discard contaminated clothing. Get medical attention if symptoms occur.

INGESTION: Rinse mouth well with water. Never give an unconscious person anything to ingest. Do not induce vomiting unless directed to do so by medical personnel. Seek immediate medical attention.

INHALATION: Keep the victim the victim warm and quiet. Remove the victim from the contamination immediately to fresh air. Use adequate respiratory protection. Seek immediate medical assistance.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ThreeBond6154D (480ml) Aerosol

ACUTE EFFECTS: No data as a product

5. FIRE FIGHTING MEASURES

FLAMMABLE CLASS: Flammable

GENERAL HAZARD: May burst the container upon heating.

EXTINGUISHING MEDIA: Dry powder, alcohol-resistant foam, carbon dioxide gas, dry sand, and spray water.

HAZARDOUS COMBUSTION PRODUCTS: May produce poisonous and irritated gases upon a fire. The container may be exposed upon heating.

FIRE FIGHTING PROCEDURES: Workers should wear appropriate protection (glasses, clothes, mask for poisonous gasses, etc.), then extinguishing should be performed up wind.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Then extinguish should be performed up wind. Move product container from fire vicinity if safe to do so..

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb with dry sand, soil, sawdust, cloth, etc., then place in a sealable container.

LARGE SPILL: Dike and prevent overflow. Guide to a safe place then dispose properly.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Do not allow product to flow into rivers or affect the environment

GENERAL PROCEDURES: All ignition sources should be quickly removed (No smoking in the vicinity, prohibit sparks or fire sources)

RELEASE NOTES: Keep spilled material from entering storm drains, sewers, or other environmental mediums.

SPECIAL PROTECTIVE EQUIPMENT: Wear appropriate personal protection equipment to avoid contact to eyes, skin, and inhalation.

COMMENTS: Disposal of clean-up materials may be governmentally regulated. Observe all applicable local, state, and federal waste management regulations.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Take precaution against fire.

HANDLING: Avoid contact with eyes and skin. Wear appropriate personal protection. Wash thoroughly after handling.

STORAGE: Store locked up. Store in well ventilated place. Keep cool. Do not expose to temperatures exceeding 50 deg. C (122 deg. F). Keep container tightly closed.

STORAGE TEMPERATURE: -5°C Minimum to 40°C Maximum

COMMENTS: Containers, even those that have been emptied, will retain product residue and vapors. Always obey hazard warnings and handle empty containers as if they were full. Do not mix this product with other cleaning agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
Chemical Name	EXPOSURE LIMITS			
	Type		ppm	mg/m ³
Nonane	ACGIH TLV	TWA	200	1050
Mineral Oil	OSHA PEL	TWA		5 mg/m ³ (oil mist)
	ACGIH TLV	TWA		5 mg/m ³ (oil mist)
Carbon black	OSHA PEL	TWA	[1]	3.5 mg/m ³ [1]
	ACGIH TLV	TWA		(3.5) mg/m ³

OSHA TABLE COMMENTS:
1. Inhalable fraction

ENGINEERING CONTROLS: If handling this product indoors, seal off sources or use a local mechanical ventilation system, etc. Place a safety shower, hand washing sink and eye bath near area and clearly marked.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)

SKIN: Neoprene or nitrile rubber gloves recommended

RESPIRATORY: In case of insufficient ventilation, wear NIOSH approved respiratory equipment when exposure limits are exceeded.

PROTECTIVE CLOTHING: Wear a protective apron, boots, if necessary. Wear long sleeved shirt or protective sleeves over arms.

WORK HYGIENIC PRACTICES: Wash hands before eating, smoking, or using restroom. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

OTHER USE PRECAUTIONS: Do not eat, drink or smoke when using this product

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Slight odor

ODOR THRESHOLD: No information available

APPEARANCE: Liquid (content)

COLOR: Black

pH: No information available

FLASHPOINT AND METHOD: 43°C TAG CC

FLAMMABLE LIMITS: No information available

AUTOIGNITION TEMPERATURE: No information available

VAPOR PRESSURE: No information available

VAPOR DENSITY: No information available

BOILING POINT: No information available

FREEZING POINT: No information available

MELTING POINT: No information available

THERMAL DECOMPOSITION: No information available

SOLUBILITY IN WATER: Slightly soluble in water

PARTITION COEFFICIENT: N-OCTANOL/WATER: No information available

EVAPORATION RATE: No information available

DENSITY: No information available

SPECIFIC GRAVITY: 0.85

VISCOSITY #1: 2300 mPa·s

10. STABILITY AND REACTIVITY

REACTIVITY: No information available

STABILITY: Stable under normal handling

CONDITIONS TO AVOID: Heat

POSSIBILITY OF HAZARDOUS REACTIONS: Reacts with strong oxidizers, then may cause danger in a fire.

HAZARDOUS DECOMPOSITION PRODUCTS: Incineration may produce poisonous gases upon condition (Carbon monoxide, Low molecule organic compounds, etc.) upon conditions

INCOMPATIBLE MATERIALS: Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)
Carbon black	> 15400 mg/kg - rat	> 3 g/kg (Rabbit)

DERMAL LD₅₀: > 3 g/kg (Rabbit)

Notes: Carbon black (1333-86-4)

ORAL LD₅₀: > 15400 mg/kg (rat)

Notes: Carbon black (1333-86-4)

INHALATION LC₅₀: Dimethyl ether (115-10-6) : LC50 = 308.5 mg/L (Rat) 4 hr

Nonane (111-84-2): = LC50 = 3200 ppm (Rat) 4 hr

NOTES: No data as a product

SKIN CORROSION/IRRITATION: No data available as this product

SERIOUS EYE DAMAGE/IRRITATION: No data available as this product

RESPIRATORY OR SKIN SENSITISATION: No data available as this product

GERM CELL MUTAGENICITY: No data available as this product

CARCINOGENICITY

Chemical Name	IARC Status	Other
Carbon black	2B	ACGIH: A4

IARC: Not Listed

NTP: Not Listed

OSHA: Not Listed

NOTES: No data available as this product.

REPRODUCTIVE TOXICITY: No data as a product

STOT-SINGLE EXPOSURE: No data available as this product

STOT-REPEATED EXPOSURE: No data available as this product

ASPIRATION HAZARD: No data available as this product

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data as a product

ECOTOXICOLOGICAL INFORMATION: No data as a product

BIOACCUMULATION/ACCUMULATION: No data as a product

Notes: No data as a product

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your licensed waste contractor for detailed recommendations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Aerosols, flammable, (Dimethyl ether)

PRIMARY HAZARD CLASS/DIVISION: 2.1

ThreeBond6154D (480ml) Aerosol

UN/NA NUMBER: UN1950

AIR (ICAO/IATA)

SHIPPING NAME: Aerosols, flammable, (Dimethyl ether)

UN/NA NUMBER: UN1950

PRIMARY HAZARD CLASS/DIVISION: 2.1

PACKING GROUP: III

NOTE: Follows ICAO/IATA regulation

VESSEL (IMO/IMDG)

SHIPPING NAME: Aerosols, flammable, (Dimethyl ether)

UN/NA NUMBER: UN1950

PRIMARY HAZARD CLASS/DIVISION: 2.1

15. REGULATORY INFORMATION

UNITED STATES

STATES WITH SPECIAL REQUIREMENTS

Chemical Name	Requirements
Dimethyl ether	This product contains a component or components listed on the Massachusetts Right to Know list of hazardous substances. This product contains a component or components listed on the New Jersey Right to Know list of hazardous chemicals. This product contains a component or components listed on the Pennsylvania Right to Know list of hazardous substances.
Carbon black	This product contains a component or components listed on the Massachusetts Right to Know list of hazardous substances. This product contains a component or components listed on the Pennsylvania Right to Know list of hazardous substances.

CALIFORNIA PROPOSITION 65: WARNING: This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. Carbon Black (bound)

Chemical Name	Wt. %	Listed
Carbon black	< 1	Cancer

16. OTHER INFORMATION

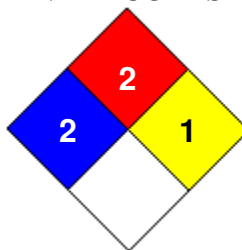
Date-Revised: 05/16/2016

REVISION SUMMARY: This MSDS replaces the 02/16/2016 MSDS. Revised: **Section 3:** Wt.%. **Section 4:** EYES, INHALATION. **Section 7:** STORAGE, STORAGE TEMPERATURE. **Section 8:** PERSONAL PROTECTIVE EQUIPMENT (RESPIRATORY, PROTECTIVE CLOTHING). **Section 9:** DENSITY. **Section 10:** STABLE. **Section 11:** ACUTE (DERMAL LD₅₀ (rabbit), DERMAL LD₅₀ (rabbit), DERMAL LD₅₀ (rabbit), ORAL LD₅₀ (rat), INHALATION LC₅₀ (rat), ORAL LD₅₀ (rat), ORAL LD₅₀ (rat), ORAL LD₅₀ (rat)), ASPIRATION HAZARD, CARCINOGENICITY, GERM CELL MUTAGENICITY, REPRODUCTIVE TOXICITY, , STOT-REPEATED EXPOSURE, STOT-SINGLE EXPOSURE, , SKIN CORROSION/IRRITATION. **Section 14:** AIR (ICAO/IATA) - PACKING GROUP. **Section 16:** HMIS RATING (CHRONIC).

HMIS RATING

HEALTH	<input type="checkbox"/>	2
FLAMMABILITY		2
PHYSICAL HAZARD		1
PERSONAL PROTECTION		F

NFPA CODES



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