

**ATTENTION:**

- GENERAL MANAGER
- PARTS MANAGER
- CLAIMS PERSONNEL
- SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.




QUALITY DRIVEN® SERVICE

**PRODUCT CAMPAIGN BULLETIN**

**APPLICABILITY:** 2005-2009MY Subaru Legacy/Outback

**NUMBER:** WQG-43R

**SUBJECT:** Brake Line Corrosion

**DATE:** May 2013

**REVISED:** July 2014

**July, 2014:**

*This recall has been superseded to the WQK-47 brake line corrosion recall issued in July, 2014. Please refer to the WQK-47 bulletin for more detail.*

**IMPORTANT NOTE:** *If the WQG-43 brake line corrosion recall repair was already performed, the WQK-47 recall repair must also be performed to ensure that all affected areas of the brake lines are acceptable and treated with anti-corrosion material as a preventative measure.*

*Any incomplete WQG-43 recall applicability is now expired in SOA's system. Claims for WQG43 repairs performed after the expiration date will not be processed.*

Subaru of America, Inc. has determined that a defect, which relates to motor vehicle safety, exists on certain 2005-2009 model year Subaru Legacy / Outback vehicles currently or formerly registered in at least one of the “salt-belt” states listed below. These vehicles may have been manufactured with brake lines that could, over time, corrode in the area of the four-way joint connector if exposed to salt. Excessive corrosion could eventually cause perforation of a brake line(s) resulting in a brake fluid leak.

Should a brake line corrode to the point of developing a perforation, brake fluid will leak from the line(s) causing the related circuit to eventually lose effectiveness. In this situation, there would be an increase in the amount of brake pedal travel distance and foot pressure required to slow or stop the vehicle. This might cause the driver to misjudge the amount of brake pedal travel required to achieve the desired stopping distance, increasing the risk of a crash.

This recall will involve cleaning, inspecting and testing the brake lines in the area of the four-way joint connector for perforation. If the lines are found to be acceptable, as a preventative measure it will be necessary to apply an anti-rust material to the areas of concern. If any brake lines are found to be leaking, all four will require replacement.

**AFFECTED VEHICLES**

Certain 2005-2009 model year Subaru Legacy / Outback vehicles currently or formerly registered in at least one of the following “salt-belt” states and Washington D.C.:

- |                      |               |               |               |
|----------------------|---------------|---------------|---------------|
| Connecticut          | Maine         | New Hampshire | Vermont       |
| Delaware             | Maryland      | New Jersey    | West Virginia |
| District of Columbia | Massachusetts | New York      | Wisconsin     |
| Illinois             | Michigan      | Ohio          |               |
| Indiana              | Minnesota     | Pennsylvania  |               |
| Iowa                 | Missouri      | Rhode Island  |               |

*Continued...*

**Affected vehicles are identified in the VIN range chart below. NOTE: Not all vehicles within the range are affected. Coverage for all affected vehicles must be confirmed by using the Vehicle Coverage Inquiry function at [Subarunet.com](http://Subarunet.com).**

<b>'05 – '09MY SUBARU LEGACY MODELS</b>			
<b>MODEL</b>		<b>VIN RANGES</b>	
		<b>From</b>	<b>To</b>
2005MY	Sedan	5*200004	5*230151
	Wagon	5*300005	5*393157
2006MY	Sedan	6*200005	6*220857
	Wagon	6*300006	6*364139
2007MY	Sedan	7*200021	7*215147
	Wagon	7*300016	7*346285
2008MY	Sedan	8*200003	8*227207
2009MY	Sedan	9*210001	9*236940

<b>'05 – '09MY SUBARU OUTBACK MODELS</b>			
<b>MODEL</b>		<b>VIN RANGES</b>	
		<b>From</b>	<b>To</b>
2005MY	Outback	5*200016	5*393923
2006MY	Outback	6*200006	6*364201
2007MY	Outback	7*200022	7*346352
2008MY	Outback	8*300003	8*367430
2009MY	Outback	9*310001	9*348625

\*Various Characters may occupy this position

## **OWNER NOTIFICATION**

Notification letters will be sent to owners of vehicles that are currently or previously registered in at least one of the “salt-belt” states. Owner notification began on May 30th, 2013.

A copy of the Owner Notification Letter is included at the end of this bulletin.

*Continued...*

## OWNERS LOCATED OUTSIDE THE AFFECTED “SALT-BELT” STATES

Notification letters will only be mailed to owners of vehicles that are currently or previously registered in at least one of the “salt-belt” states. However, there are circumstances under which vehicles that were not previously or ever registered in a “salt-belt” state are covered by this recall campaign. These circumstances may include:

1. Vehicles not currently or previously registered in a “salt-belt” state that have relocated into a “salt-belt” area and/or vehicles registered in a “non-salt belt” state, and driven in a “salt-belt” area. We request that dealers located in “salt-belt” states check all vehicles within the affected VIN range for recall coverage. If it is determined that an owner of a vehicle, within the affected VIN range, relocates or uses his or her vehicle in a “salt-belt” area, the dealer should perform the recall procedure.
2. Vehicles in “non-salt belt” states that have experienced the defect. In the unlikely event that an owner in a “non-salt belt” state experiences the defect or otherwise requests the procedure be performed on their vehicle, the dealer should perform the recall procedure. This applies to both “salt-belt” and “non-salt belt” state dealers.

The dealer should perform the recall procedure at no cost to the customer. For claim submission, please contact the Warranty Claims Helpline to have the VIN added to the recall.

## DEALER PROGRAM RESPONSIBILITY

Dealers are to promptly perform the applicable service procedures defined in this bulletin to correct all affected vehicles in their inventory (new, used, demo & SSLP). Additionally, whenever a vehicle subject to this recall is taken into dealer new or used inventory, or in the dealership for service, necessary steps should be taken to ensure the recall correction has been made before selling or releasing the vehicle.

New, used, demo or SSLP vehicles listed in a recall/campaign that are in dealer stock must be:

- Immediately identified.
- Tagged or otherwise marked to prevent their delivery or use prior to inspection and/or repair.
- Repaired in accordance with the repair procedures outlined in this Product Campaign Bulletin.

**Please be advised that it is a violation of Federal law for a dealer to deliver a new motor vehicle covered by a recall under a sale or lease until the defect is remedied. Therefore, any Authorized Subaru Dealer failing to perform the applicable service procedures as defined in this bulletin to correct all affected vehicles in their inventory (new, used, demo & SSLP) prior to the vehicle being placed in service may be subject to civil penalties of up to \$6,000 per violation (i.e., for each vehicle), as provided in 49 CFR §578.6 and will also be in breach of the Subaru Dealer Agreement.**

*Continued...*

## PARTS INFORMATION

### Rust-proofing Materials

**Note: The rust-proofing material is packaged in 11 ounce aerosol cans. Each can contains enough material to treat 33 vehicles.**

During the week of June 3rd, 2013, only dealers located in affected “salt-belt” states will automatically be shipped two cans of rust-proofing material. This provides enough material to treat 66 vehicles. It will be necessary for dealers located outside of affected “salt-belt” states to order rust-proofing material as needed.

Additional quantities of the rust-proofing material are available through the “Genuine Subaru Automotive Chemical” program. In order to maintain an adequate part supply, SOA requests that Dealers only order quantities necessary to satisfy anticipated demand.

**Note: SOA will notify owners of vehicles that are currently or previously registered in at least one of the “salt-belt” states. In cases where the vehicle was previously registered in a salt-belt state, it will be necessary for dealers located outside the “salt-belt” area to order materials to service these affected vehicles.**

PART NUMBER	DESCRIPTION
SOA868V9360	Nox-Rust® 712AM Aerosol

For claim reimbursement purposes, dealers should use the part number below, which represents rust proofing materials sufficient for one vehicle application:

PART NUMBER	DESCRIPTION	QUANTITY
SOA635115	Rust-proofing Material (non-orderable part number for claim purposes only)	1

## REPAIR PROCEDURE

### Exposure Controls for use of Nox-Rust® 712AM Aerosol

The Material Safety Data Sheet (MSDS) which provides storage and handling procedures for this product is included at the end of this bulletin.

## INTRODUCTION

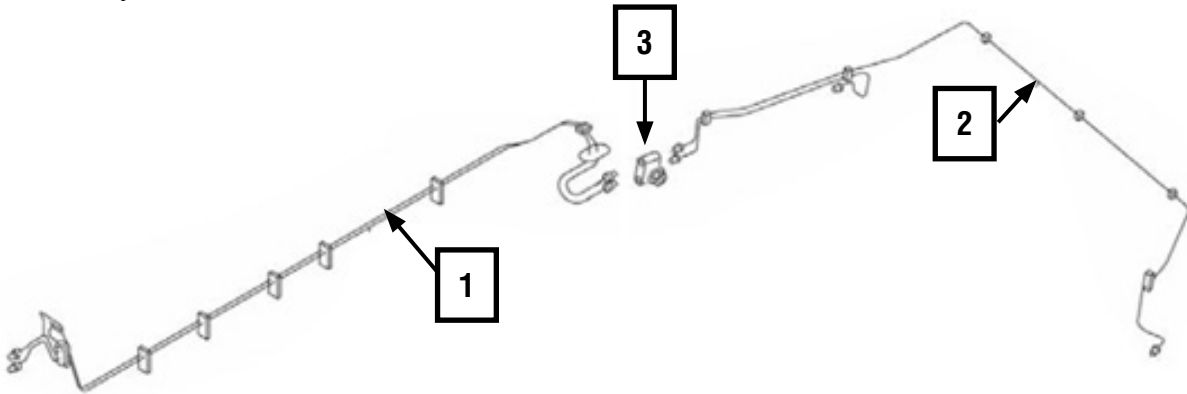
This Recall involves the inspection and cleaning of the brake piping at the 4-way connector located on the right side of the vehicle ahead of the rear wheel area as shown in Photo 1.

- If no leakage is found, rust proofing material will need to be applied to the affected area.
- If leakage is found at the 4-way connector, the center and rear brake piping must be replaced then treated with rust proofing material.

*Continued...*

The affected components are:

- 1- Brake Pipe (center)
- 2- Brake Pipe (Rear)
- 3- 4-Way Connector



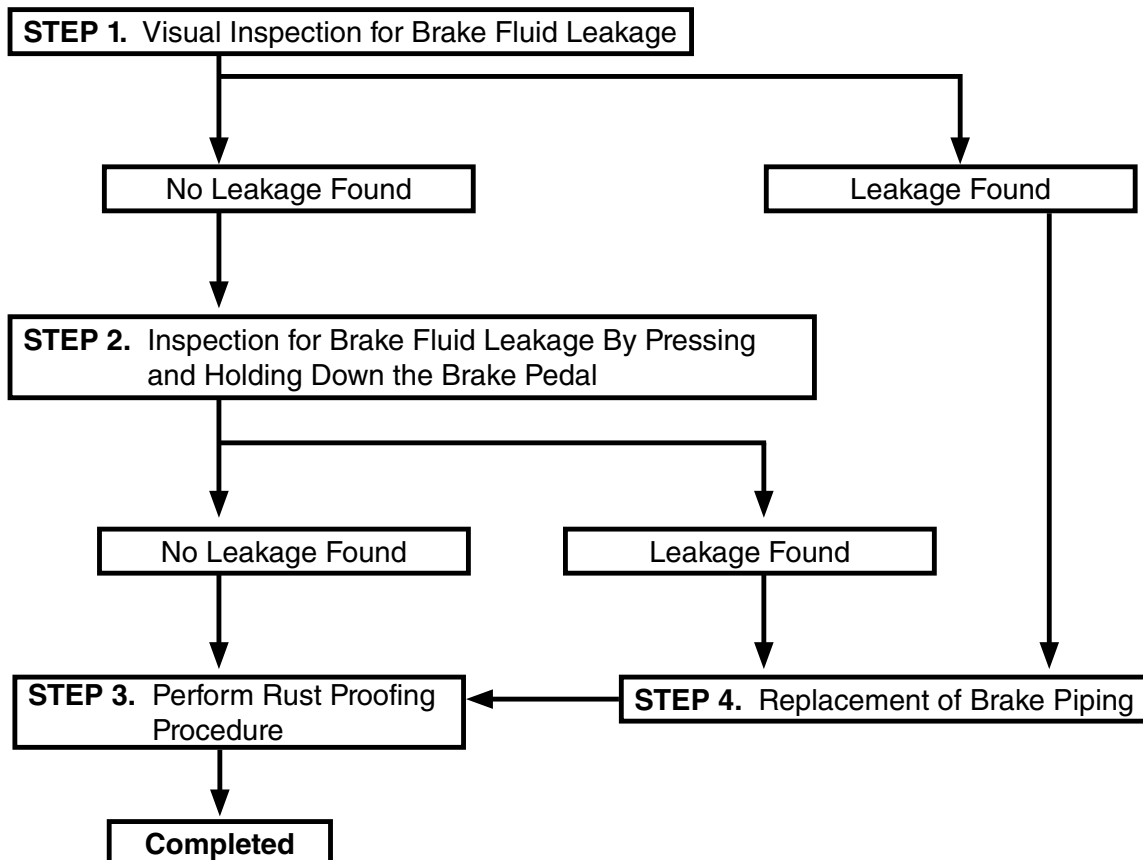
### PARTS INFORMATION

NOX-RUST 712 AM Aerosol Spray Anti-Rust Wax

Both center and both rear brake pipes depending on inspection results.

### SERVICE PROCEDURE

The flow chart below provides a brief overview of the WQG-43 Service Procedure. Detailed instructions will be provided for each step.



*Continued...*

**STEP 1.** Raise the vehicle on a twin-post (symmetrical) lift to perform the inspection of the 4-way connector area of the brake piping for any sign of brake fluid leakage. Open the inspection door located on the right-hand plastic fuel tank cover shown in Photo 1 below. This will provide access to inspect the 4-way connector area of the brake piping which is the focus of this recall.



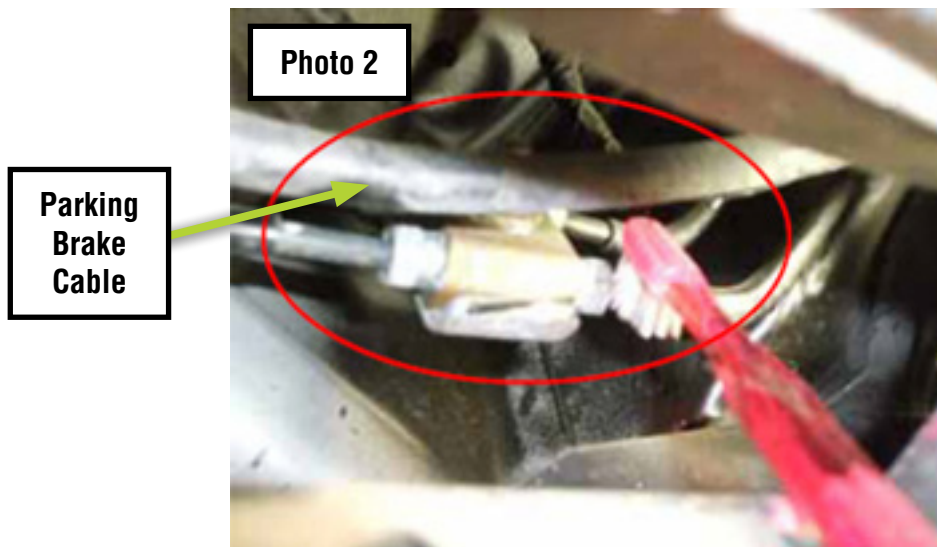
Using a dry **non-metallic bristled brush**, clean away any dirt and debris from the 4-way connector area as shown in Photo 2. Be sure to wear safety glasses.

**NOTE:** This area may be covered in road dirt, debris or wet residue. To determine if the wet condition is caused by road material or brake fluid it is necessary to clean and dry the area.

**IMPORTANT:** Do not use a metal brush as the hard bristles may cause damage to the brake piping.

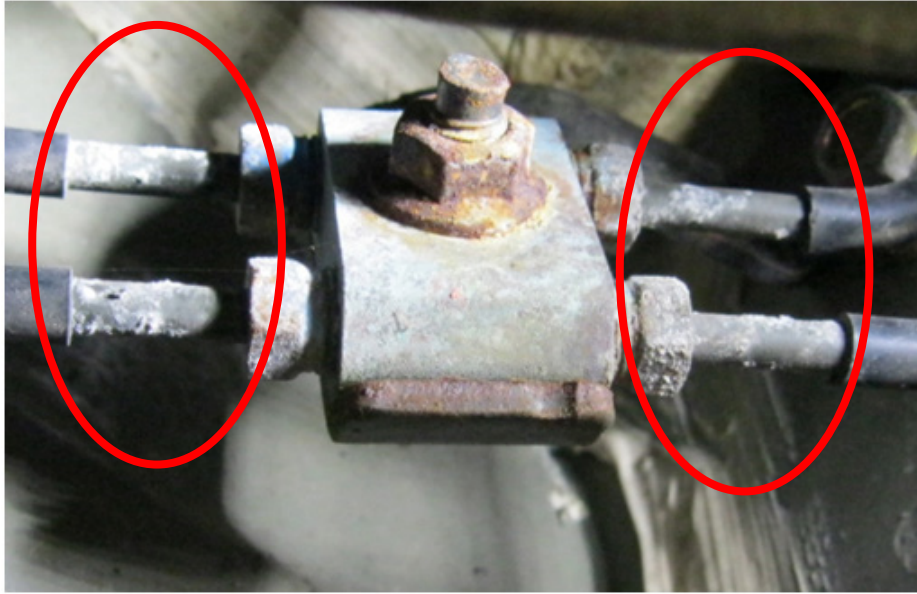
Move the parking brake cable out of the way to gain better access if needed.

Use compressed air to dry the area thoroughly if necessary.



*Continued...*

After a thorough cleaning, inspect the area closely for any sign of brake fluid leakage, concentrating on the areas circled in red in Photo 3 below.



If no brake fluid leakage is found, proceed to **Step 2**.

If brake fluid leakage IS found, proceed to **Step 4**.

**STEP 2.** Perform a second inspection of the 4-way connector area of the brake piping for any sign of brake fluid leakage with the brake piping under pressure using the brake pedal to pressurize the system.

Follow the procedure outlined below:

- A. Lower the vehicle.
- B. Start engine and allow it to idle.
- C. Depress brake pedal 110mm (4.3 inches) and hold for approximately 3 seconds.
- D. Release the brake pedal then shut off the engine.
- E. Raise vehicle again.
- F. Inspect closely to determine if there is any brake fluid leakage around the affected areas highlighted in the red circles shown in Photo 3 above.

If **NO** brake fluid leakage is found in **Step 1** or **Step 2**, proceed to **Step 3**

If brake fluid leakage IS found, proceed to **Step 4**.

**STEP 3.** Rust Proofing Application

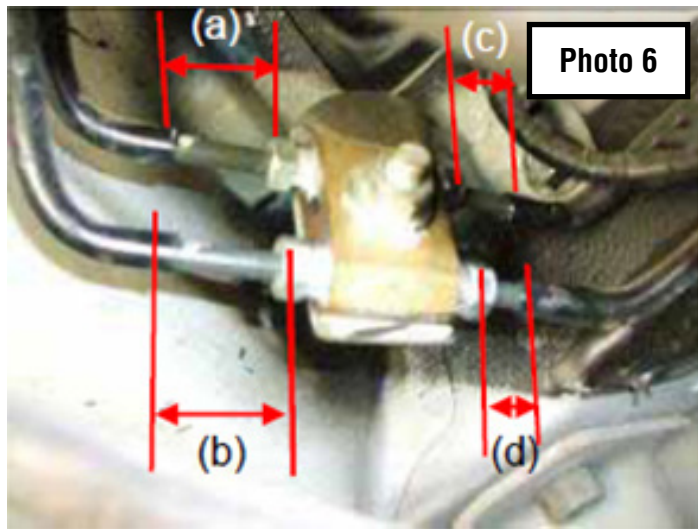
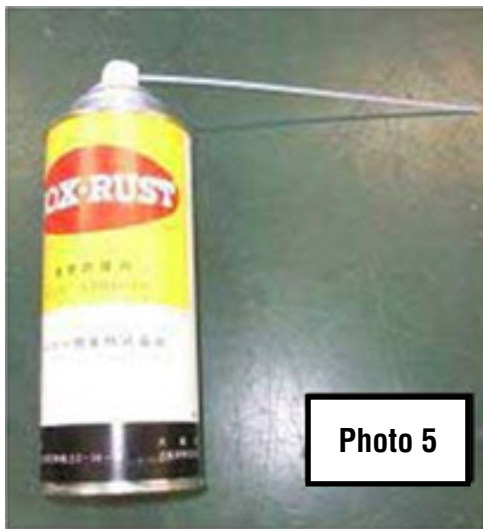
Follow the rust proofing procedure outlined below:

**IMPORTANT NOTES:**

- For your protection, be sure to wear safety goggles and a particle mask.
- The NOX-RUST 712AM product is flammable. Always take proper precautions and follow all the safety warnings on the label closely.

*Continued...*

- A. Shake the aerosol can vigorously. Once the ball inside the can is heard rattling, continue to shake the can for another 10 seconds to insure thorough mixing of the contents.
- B. Install the plastic spray nozzle applicator tube as shown in Photo 5 below.
- C. Spray the rust proofing material onto the applicable areas for 3 seconds or more at all 4 of the affected areas shown in Photo 6. Confirm the rust proofing material has been adequately applied to the total circumference of the brake piping. If necessary, use a small mirror to inspect areas which are hard to see.
- D. Make sure the rust proofing drips off of the brake piping as shown in Photo 7. This will insure enough of the material has been applied. Catch any dripping material with a shop cloth.



*Continued...*



After the rust proofing procedure is complete, close the inspection door and lower the vehicle to complete the WQG-43 Recall.

**STEP 4.** If brake fluid leakage IS found while performing **Step 1** or **Step 2**, **BOTH** center brake pipes and **BOTH** rear brake pipes **MUST** all be replaced together (4 pipes total).

Refer to the applicable Parts Catalog to identify the proper part numbers for the vehicle.

Be sure to follow all the installation precautions and related procedures outlined in the applicable Service Manual when replacing these components.

Once the brake piping replacement has been completed, the system refilled and bled, **the rust proofing procedure outlined in Step 3 MUST be performed.**

After the rust proofing procedure is complete, close the inspection door and lower the vehicle to complete the WQG-43 Recall.

## **RECALL IDENTIFICATION LABEL**

**Type or print the necessary information on a Recall identification label.** The completed label should be attached to the vehicle's upper radiator support.

Additional labels are available through normal Parts ordering channels. The part number is MSA6P1302. Ordering qty 1=1 sheet of 20 labels.

<b>SUBARU</b>
Campaign Code
WQG-43
COMPLETED
DIST./DEALER NO.
SERIAL NO.
<b>DO NOT REMOVE</b>

*Continued...*

## CLAIM REIMBURSEMENT AND ENTRY PROCEDURES

Credit to perform this recall will be based on the submission of properly completed repair order information. Dealers may submit claims through Vehicle Claim Entry on Subarunet.com.

CLAIM TYPE	CAMPAIGN CODE	LABOR	LABOR OPERATION
RC	WQG-43	A153-348 0.2 hrs.	Brake Pipe Clean, Inspection & Rust Proofing
		A153-344 6.8 hrs.	Brake Pipe Clean, Inspect, Replacement & Rust Proof

For claim reimbursement purposes, dealers should use the following part number, which represents rust proofing materials sufficient for one vehicle application:

PART NUMBER	DESCRIPTION	QUANTITY
SOA635115	Rust-proofing Material (non-orderable part number for claim purposes only)	1

*Continued...*

# OWNER NOTIFICATION LETTER



**Subaru of America, Inc**  
Subaru Plaza  
PO Box 6000  
Cherry Hill, NJ 08034-6000  
800-782-2783  
www.subaru.com

**Important Safety Recall Notice**  
**Subaru Recall Campaign WQG-43**  
**NHTSA Recall No. 13V-110**  
**May 2013**

## Dear Subaru Owner:

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

SUBARU OF AMERICA, INC. has decided that a defect, which relates to motor vehicle safety, exists in some 2005 - 2009 model year Subaru Legacy and Outback vehicles currently or formerly registered in at least one of the following states:

Connecticut	Maine	New Hampshire	Vermont
Delaware	Maryland	New Jersey	West Virginia
District of Columbia	Massachusetts	New York	Wisconsin
Illinois	Michigan	Ohio	
Indiana	Minnesota	Pennsylvania	
Iowa	Missouri	Rhode Island	

## DESCRIPTION OF THE SAFETY DEFECT

Subaru has determined that your vehicle may have been manufactured with brake lines that could, over time, corrode in the area of the four-way joint connector if exposed to salt.

Depending on driving conditions, salt water could splash on the brake lines in the area of the four-way joint connector resulting in corrosion of the lines. Excessive corrosion could eventually cause perforation of a brake line(s) resulting in a brake fluid leak.

## DESCRIPTION OF THE SAFETY HAZARD

Your vehicle has a dual circuit braking system. Each circuit works independently and diagonally across the vehicle. If one circuit of the brake system fails, the other half of the system still works. Should a brake line corrode to the point of developing a perforation, brake fluid will leak from the line(s) causing the related circuit to eventually lose effectiveness. In this situation, there would be an increase in the amount of brake pedal travel distance and foot pressure required to slow or stop the vehicle. This might cause the driver to misjudge the amount of brake pedal travel required to achieve the desired stopping distance, increasing the risk of a crash.

## INSPECTION / REPAIR

Subaru will inspect and test the current condition of your vehicle's brake lines. If they are found to be acceptable, anti-rust material will be applied to the areas of concern as a preventative measure. If any of the lines are found to be unacceptable, they will be replaced and anti-rust material will be applied to the uncoated brake line areas. These repairs will be performed at no cost to you.

*Continued...*

## **WHAT YOU SHOULD DO**

You should immediately contact your Subaru Dealer for an appointment to have the brake lines inspected and repaired as indicated in the “Inspection / Repair” section of this letter.

There are several important precautions you should take until this repair has been performed:

- If you experience the condition described above while braking, continue to apply steady pressure on the brake pedal until the vehicle comes to a stop. Immediately contact your Subaru dealer for assistance.
- If you notice fluid leaking from the vehicle, do not operate the vehicle. Immediately contact your Subaru dealer for assistance.
- If the brake system warning light remains illuminated on the instrument panel with the parking brake fully released, do not operate the vehicle. Immediately contact your Subaru dealer for assistance.
- Always maintain a safe distance from other vehicles while driving. The normally recommended minimum distance is one car length of space for every 10 mph of speed.
- As a precautionary measure, it is highly recommended that you use extra care while operating the vehicle in confined areas such as parking lots and while parking your vehicle in a garage, car port or other structure.

## **HOW LONG WILL THE REPAIR TAKE?**

The time to inspect the brake lines and apply anti-rust material is approximately 18 minutes. If it is determined that the brake lines require replacement, the total estimated repair time is 7 hours. However, it may be necessary to leave your vehicle for a longer period of time on the day of your scheduled appointment to allow your dealer flexibility in scheduling. Please present this letter to your Subaru Dealer at the time this repair procedure is performed.

## **IF YOU HAVE PREVIOUSLY PAID FOR A REPAIR**

If you have already paid for repairs associated with this condition, you may be eligible for reimbursement. Reimbursement consideration will be based on the amount an authorized Subaru dealer in your area would charge for the same repair.

Please send the original service repair order, which has the name of the repair facility, date of repair, mileage at the time of repair, complete vehicle identification number (17 digits), and your name, with correct mailing address and telephone number to the address listed below.

**Subaru of America, Inc.  
Customer Dealer Services Department  
Attention: WQG-43 Recall  
P.O. Box 6000  
Cherry Hill, NJ 08034-6000**

Please send original receipts only and retain a photocopy for your records. Please be assured that we will attempt to process your reimbursement request as quickly as possible, but it may take up to 60 days for this process to be completed.

## **CHANGED YOUR ADDRESS OR SOLD YOUR SUBARU?**

If you have moved or sold your vehicle, please complete the enclosed prepaid postcard and mail it to us.

*Continued...*

## IF YOU NEED FURTHER ASSISTANCE:

To locate the nearest Subaru Dealer you can access our website at [www.subaru.com](http://www.subaru.com) and select “Find a Dealer”.

For additional information and for the most Frequently Asked Questions, please go to:

- <http://www.wqg43.service-campaign.com>

If you need additional assistance, please contact us directly:

- E-mail: Go to [www.subaru.com](http://www.subaru.com) and select “Contact Us”.
- Telephone: 1-800-SUBARU3 (1-800-782-2783)  
Monday through Thursday between 7:30 a.m. and 8:00 p.m. ET.  
Friday between 10:30 a.m. and 5:00 p.m. ET  
Saturday between 9:00 a.m. and 3:30 p.m. ET
- U.S. Postal mail: Write us at Subaru of America, Inc.  
Attn: CDS Department, P.O. Box 6000, Cherry Hill, NJ 08034-6000.

Please contact us immediately if the dealer fails or is unable to make the necessary repairs free of charge.

You may also contact the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave. SE, West Building, Washington, DC 20590 or call the toll free Auto Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153) or go to <http://www.safercar.gov> if you believe the dealer has failed or is unable to remedy your vehicle without charge within a reasonable amount of time.

Your continued satisfaction with your Subaru is important to us. Please understand that we have taken this action in the interest of your safety and your vehicle’s proper operation. We sincerely apologize for any inconvenience this matter may cause and urge you to schedule an appointment as soon as possible to have this repair performed.

Sincerely,  
Subaru of America, Inc.

***Notice to Lessors:*** Under Federal law the lessor of a vehicle who receives this letter must provide a copy of it to the vehicle lessee(s) within 10 business days from receipt. The lessor must also keep a record of the lessee(s) to whom this letter is sent, the date sent, and the applicable vehicle identification number (VIN). (For the purposes of this section, a lessor means a person or entity that in the last twelve months prior to the date of this notification has been the owner, as referenced on the vehicle’s title, of any five or more leased vehicles. A leased vehicle is a vehicle leased to another person for a term of at least four months.)

*A subsidiary of Fuji Heavy Industries Ltd.*

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# MATERIAL SAFETY DATA SHEET

## DAUBERT CHEMICAL COMPANY

4700 SOUTH CENTRAL AVENUE  
CHICAGO, ILLINOIS 60638  
TELEPHONE: (708) 496-7350  
FAX: (708) 496-7367

EMERGENCY CONTACT:  
CHEMTREC (800) 424-9300

## HMIS HAZARD RATING

Health	1
Fire	3
Reactivity	0
Personal Protection	D

Date of Review:

Date of Preparation: April 12, 2013

Date of Revision:

By: M. Duncan

## SECTION I: CHEMICAL IDENTIFICATION

Product Name: **Nox-Rust<sup>®</sup> 712AM Aerosol**  
General or Generic ID: Corrosion preventive compound

## SECTION II: INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Percent Weight
Distillates (petro.), solvent-dewaxed heavy paraffinic	64742-65-0	1-5%
Sulfonic acids, petroleum, calcium salts, overbased	68783-96-0	1-5%
White mineral oil, petroleum	8042-47-5	10-30%
Castor Oil, dehydrated, polymerized	68038-02-8	1-5%
Slack Wax	64742-61-6	3-5%
Petroleum gases, liquefied	68476-85-7	30-60%

## SECTION III: HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW:

**DANGER:** Extremely flammable. Harmful by inhalation. Irritating to eyes. May cause skin irritation. Contents under pressure. Container may explode if heated.

**POTENTIAL HEALTH EFFECTS:** See Section 11 for more information.

**LIKELY ROUTES OF EXPOSURE:** Skin contact, skin absorption, eye contact and inhalation.

**Eye:** Irritating to eyes.  
**Skin:** May cause skin irritation.  
**Ingestion:** Not a normal route of exposure. May be harmful if swallowed.  
**Inhalation:** Harmful by inhalation. May cause respiratory tract irritation.

**CHRONIC EFFECTS:** Prolonged or repeated contact may cause irritation.

**SIGNS AND SYMPTOMS:** Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause stomach distress, nausea or vomiting. Vapors may cause drowsiness and dizziness.

*Continued...*

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Pre-existing eye, skin, respiratory system, liver, kidneys, central nervous system conditions may be aggravated by over-exposure to this product.

**TARGET ORGANS:** Eyes, skin, respiratory system, nervous system, liver, and kidneys.

**POTENTIAL ENVIRONMENTAL EFFECTS:** May cause long-term adverse effects in the aquatic environment. See Section 12 for more information.

#### SECTION IV: FIRST AID MEASURES

**EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention. If easy to do, remove contact lenses, if worn. Get medical attention.

**SKIN CONTACT:** Wash area with soap and water. Seek medical attention if irritation persists.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

**INGESTION:** DO NOT induce vomiting. If victim is conscious and alert, give 2 cupfuls of water. Seek medical attention. NEVER give UNCONSCIOUS victim anything by mouth.

**GENERAL ADVICE:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or MSDS where possible).

**NOTE TO PHYSICIANS:** Symptoms may not appear immediately.

#### SECTION V: FIRE FIGHTING MEASURES

**FLASH POINT:** No data for mixture as a whole. Propellant -76°C

**FLAMMABILITY:** Flammable by WHMIS criteria.

**EXTINGUISHING MEDIA:** Carbon Dioxide (CO<sub>2</sub>), Dry Chemical, Foam.

**PRODUCTS OF COMBUSTION:** May include, and are not limited to: oxides of carbon.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Vapors are heavier than air and can collect in low areas.

**FIRE FIGHTING INSTRUCTIONS:** Containers can build up pressure if exposed to fire. Containers should be cooled with water spray.

**FIRE FIGHTING EQUIPMENT:** Self-contained breathing apparatus with full face piece operated in positive pressure mode.

#### SECTION VI: ACCIDENTAL RELEASE MEASURES

**Spill/leak procedures:** Notify safety personnel, evacuate all unnecessary personnel and provide adequate ventilation. If feasible and without risk, clean-up personnel should stop leak. All clean-up personnel should wear proper personal protective equipment recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition. Ruptured cylinders may rocket.

**Small spill:** Clean with inert absorbent and place in recovery drums for disposal.

*Continued...*

**Large spill:** Dike to prevent further migration of material. DO NOT release into waterways or sewers. Follow applicable federal and state regulations (20CFR1910.120).

**Note:** Product in aerosol container, spill hazard unlikely.

## SECTION VII: HANDLING AND STORAGE

**Storage requirements:** Store in clean, dry locations away from excessive heat. Store in areas designated for the storage of (Level III) aerosols according to NFPA 30B (Manufacturing and Storage of Aerosol Products). Keep out of the reach of children. Keep container in a well-ventilated place. Do not store at temperatures above 49 °C / 120 °F.

**Handling precautions:** Wash thoroughly after handling. Do not get into eyes, on skin, or on clothing. Do not smoke while using this product. Do not use near excessive heat, sparks, or open flame.

## SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:** Eye wash station and safety shower.

**Ventilation:** Strong general ventilation or local exhaust.

### PERSONNEL PROTECTIVE EQUIPMENT

**Eye:** Chemical splash goggles with indirect or no ventilation.

**Skin:** Chemical resistant gloves such as nitrile.

**Respiratory:** Organic vapor air purifying respirator if vapors are a nuisance or if the concentrations are above PEL or TLV.

**COMMENTS:** Never eat, drink, or smoke in work areas.

### EXPOSURE GUIDELINES:

Ingredient ACGIH-TLV	Exposure Limits
Distillates (petroleum), solvent-dewaxed heavy paraffinic	5 mg/m <sup>3</sup> (mist)
Sulfonic acids, petroleum, calcium salts, overbased	Not available.
White mineral oil, petroleum	Not available.
Castor oil, dehydrated, polymerized	Not available.
Petroleum gases, liquefied	1000 ppm

## SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

### Base Material

Boiling point:	>250°C
Flash point	>210°C
Specific gravity:	0.9-1.0
Vapor pressure:	No Data
Vapor density:	No Data
Percent volatiles:	Nil
Solubility in water:	Not soluble in water.
Odor:	Fat/oil
Appearance:	Yellowish brown viscous liquid

*Continued...*



**Propellant**

Boiling point	-42°C
Flash point	-76°C
Odor	Colorless
Appearance	Slight ether

<b>SECTION X: STABILITY AND REACTIVITY</b>
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**Stability:** Material is stable under normal storage conditions. Contents under pressure. Container may explode if heated. Do not puncture. Do not burn. Keep in a cool place.

**Polymerization:** Hazardous polymerization cannot occur.

**Chemical incompatibilities:** Strong oxidizing agents.

**Condition to avoid:** Excessive heat and open flame.

**Hazardous decomposition products:** Carbon monoxide, and carbon dioxide.

<b>SECTION XI: TOXICOLOGICAL INFORMATION</b>
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**EFFECTS OF ACUTE EXPOSURE:****Component Analysis**

<b>Ingredient</b>	<b>LD50 (oral)</b>	<b>LC50</b>
Distillates (petroleum), solvent-dewaxed heavy paraffinic	> 5000 mg/kg, rat	> 4.7 mg/L 4hr, rat
Sulfonic acids, petroleum, calcium salts, overbased	> 20000 mg/kg, rat	Not available.
White mineral oil, petroleum	> 5000 mg/kg, rat	> 5 mg/L 4hr, rat
Castor oil, dehydrated, polymerized	Not available.	Not available.
Petroleum gases, liquefied	Not available.	Not available.

**Eye:** Irritating to eyes. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

**Skin:** May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

**Ingestion:** Not a normal route of exposure. May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**Inhalation:** Harmful by inhalation. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness.

**EFFECTS OF CHRONIC EXPOSURE:**

**Target Organs:** Not available.

**Chronic Effects:** Not hazardous by WHMIS criteria.

**Carcinogenicity:** Not hazardous by WHMIS criteria.

*Continued...*

**Ingredient****Chemical Listed as Carcinogen or  
Potential Carcinogen \***

Distillates (petroleum), solvent-dewaxed heavy paraffinic	Not listed.
Sulfonic acids, petroleum, calcium salts, overbased	Not listed.
White mineral oil, petroleum	Not listed.
Castor oil, dehydrated, polymerized	Not listed.
Petroleum gases, liquefied	Not listed.

\* See Section 15 for more information.

**Mutagenicity:** Not hazardous by WHMIS criteria.

**Reproductive Effects:** Not hazardous by WHMIS criteria.

**Developmental Effects:**

Teratogenicity: Not hazardous by WHMIS criteria.

Embryotoxicity: Not hazardous by WHMIS criteria.

**Respiratory Sensitization:** Not hazardous by WHMIS criteria.

**Skin Sensitization:** Not hazardous by WHMIS criteria.

**Toxicologically Synergistic Materials:** Not available.

<b>SECTION XII: ECOLOGICAL INFORMATION</b>
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**Ecotoxicity:** May cause long-term adverse effects in the aquatic environment.

**Persistence / Degradability:** Not available.

**Bioaccumulation / Accumulation:** Not available.

**Mobility in Environment:** Not available.

<b>SECTION XIII: DISPOSAL CONSIDERATION</b>
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As a waste, this product in its raw form =DOES MEET= the criteria of a hazardous waste as defined by RCRA (40CFR361).

Dispose of in accordance with all applicable state, federal, and local regulations.

<b>SECTION XIV: TRANSPORT INFORMATION</b>
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DOMESTIC:

\*Consumer Commodity ORM-D

EXPORT:

\*ID 8000 Consumer Commodity, Class 9

TDG Classification

Limited Quantity

*Continued...*

**SECTION XV: REGULATORY INFORMATION**

**U.S. FEDERAL REGULATIONS**

OSHA: Considered hazardous material as defined by 29CFR1910.1200

**EPA SARA TITLE III:**

-Section 311-312 (40CFR370): If stored in excess of the threshold quantities, this product should be reported as a(n):

- \*IMMEDIATE (acute) HEALTH HAZARD
- \*DELAYED (chronic) HEALTH HAZARD
- \*FIRE
- \*SUDDEN RELEASE HAZARD

-Section 313 (40CFR372): This product contains no ingredients which are subject to the reporting requirements of SARA 313:

**STATE REGULATIONS**

CALIFORNIA PROPOSITION 65: This product contains no ingredients which are on the current Proposition 65 list and known to the State of California to cause cancer, birth defects or other reproductive harm:

**Federal Regulations**

**Canada:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**Global Inventories**

**Ingredient**

**Canada  
DSL/NDSL**

Distillates (petroleum), solvent-dewaxed heavy paraffinic	DSL
Sulfonic acids, petroleum, calcium salts, overbased	DSL
White mineral oil, petroleum	DSL
Castor oil, dehydrated, polymerized	DSL
Petroleum gases, liquefied	DSL

**HMIS - Hazardous Materials Identification System**

**Health - 1    Flammability - 3    Physical Hazard - 0    PPE - D**

**NFPA - National Fire Protection Association:**

**Health - 1    Fire - 3    Reactivity - 0**

**Hazard Rating:** 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

**WHMIS Classification(s):**

- Class A - Compressed Gas
- Class B5 - Flammable Aerosol
- Class D2B - Eye Irritant

**WHMIS Hazard Symbols:**



*Continued...*

**SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:**

**ACGIH** American Conference of Governmental Industrial Hygienists.

**(G)**

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

**IARC (I)** International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

**NTP (N)** National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

<b>SECTION XVI: OTHER INFORMATION</b>
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NOTES:

\*<="LESS THAN"

\*>="GREATER THAN"

Although the information contained herein is believed to be reliable, it is furnished without warranty of any kind. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, and storage.