

CORROSION-RESISTANT COMPOUND CAMPAIGN (CRC) B0D 2000 - 2003 MODEL YEAR TUNDRA FRAME CORROSION- RESISTANT COMPOUND TECHNICAL INSTRUCTIONS

Please review this entire information packet with your Service and Parts staff.

This will familiarize them with the proper step-by-step procedures required to implement this Corrosion-Resistant Compound (CRC) Campaign.

INTRODUCTION

Toyota is now prepared to launch the CRC Campaign B0D as the extension to Safety Recall 90M – CRC application to the <u>rear portion of the frame</u>. B0D will facilitate the treatment of the rear portion of the frame.

For a limited time, Toyota will also apply CRCs to the remainder of the frame assembly at **no charge** to the vehicle owner. This portion of the campaign will be provided to the customer as an additional measure of confidence and will only be offered until **December 31, 2012**. This limited time offer is only available to owners whose vehicles are **currently registered** in the following Cold Climate States or the District of Columbia (D.C.)

CT, DE, IL, IN, KY, MA, MD, ME, MI, MN, NH, NJ, NY, OH, PA, RI, VA, VT, WI & WV

Due to the various Federal, State, and Local regulations, B0D will be rolled out on a state-by-state basis.

*Please refer to the Technical Instructions for additional details.

BACKGROUND

On certain 2000 through 2003 model year Tundra vehicles operated in cold climate areas with high road salt use (Cold Climate States) excessive corrosion may be exhibited on the Rear Cross-Member of the frame. In limited circumstances, the spare tire stowed under the truck bed may become separated from the Rear Cross-Member. Spare tire separation will create a road hazard for following vehicles and could cause a crash without prior warning.

Eventually, excessive corrosion of the Rear Cross-Member may also affect the functionality of the rear brake line at the proportioning valve. If this occurs, it can lead to the loss of the rear brake circuits, which will increase vehicle stopping distances and could cause a crash without prior warning.

In addition, excessive corrosion may also be exhibited on the fuel tank mounting system, which includes two other cross-members and Fuel Tank Straps. In the worst case, the fuel tank may drop to the ground and be dragged or separate from the vehicle. This may create a road hazard which could cause a crash without prior warning or possibly a fire.

Exposure to cold climate and high road salt usage conditions are primary contributors. This is unrelated to, and separate from, normal surface rust which is commonly found on metallic surfaces after some years of usage and/or exposure to the environment.

Refer to Safety Recall 90M for further detail.

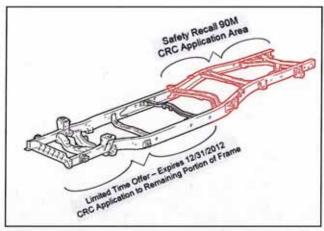
The following information is provided to inform you and your dealers of the owner notification phase of this campaign and your dealers responsibility in preparing for Campaign B0D.

1. OWNER NOTIFICATION

The owner notification will commence as soon as the Readiness Survey indicates dealers in a given area are prepared to perform the B0D campaign (See section 6 for information on the Readiness Survey). Each dealer will be contacted and provided a packet outlining the individual regulatory requirements in their state prior to starting the CRC application.

B0D - D - Page ii

Dealers should perform the CRC application to vehicles where significant corrosion was not found and that meet the criteria outlined in the table below (refer to the Technical Instructions for inspection criteria and CRC application procedure).



CRC Application	Applicable Vehicles	Expiration Date
Safety Recall 90M CRC Application Remedy	Vehicles currently registered in or originally sold in the Cold Climate States or D.C.	Currently No Expiration
Limited Time Offer* Forward Portion of the Frame	Vehicles currently registered in the Cold Climate States or D.C.	12/31/2012

^{*}Refer to the Technical Instructions for specific details.

2. DEALER/OWNER LISTS

Summary Reports containing the *number* of covered vehicles in your dealership's Primary Marketing Area (PMA) have been enclosed in the dealer package. Based upon our records, a dealership which does not have a covered vehicle in their PMA will receive a report indicating so.

3. VEHICLE COVERAGE

There are approximately **96,000** Tundra (certain 2000 through 2003 model year) vehicles covered by B0D.

Please note that as each state addresses regulatory challenges only owners of the covered vehicles registered in that specific state will be notified. VINs registered within that specific state will be loaded simultaneously on TIS and Dealer Daily.

		Year		VIN Range	Madel	10/00	V	VIN Range		
Model	WMI		VDS	Range	Model	WMI	Year	VDS	Range	
			BN441	S001001 - S125840				BN441	S220394 - S332707	
			BN481	S001001 - S001001				BT441	S219294 - S332720	
			BT441	S001001 - S125901				BT481	S219295 - S332685	
			BT481	S001001 - S125894				JN321	S220351 - S332714	
			JN321	S001001 - S125878		5TB	2002	KT421	S220380 - S328382	
		2000	KN421	S001001 - S123980				KT441	S220392 - S332706	
		2000	KN441	S001001 - S051314				RN341	S220353 - S332719	
	- 0	В	KT441	S001001 - S125833	Tundra			RT341	S220360 - S33272	
			RN341	S001001 - S125859				RT381	S220365 - S332666	
			RN381	S001001 - S001003				BN441	S332744 - S434010	
Tundra	5TB		RT341	S001001 - S125904				BT441	S316368 - S439612	
			RT381	S001001 - S125897				BT481	S306031 - S439613	
			BN441	S125937 - S220312				JN321	S332745 - S436914	
				BT441	S125905 - S220327			2003	KT421	S332818 - S414089
			BT481			2000	KT441	S330788 - S439601		
		JN321 S126112 – S220343 KN441 S064852 – S064852				RN341	S307943 - S436915			
		2001	KT421	S064852 - S064852 S090565 - S217964				RT341	S306032 - S439732	
			KT441	S125921 - S220297				RT381	S308386 - S439716	
		_	RN341	S125921 - S220297 S125909 - S220341				11301	0000000 - 0409710	
			RT341	S125907 - S220347						
			RT381	S064333 - S220345						

4. CORROSION-RESISTANT COMPOUND (CRC) ORDERING

The necessary CRC kits can be ordered through the chemical program provided by Dealer Tire (Complete Maintenance Care). The kits will be directly shipped from AMREP. Please note that deliveries are only scheduled on business days. Saturday deliveries are not available. Allow 5 business days for order processing and shipping of the CRC kit(s) to your dealership. Please note that only dealers in the Cold Climate States which have been launched will be able to order CRC kits for Campaign B0D. Also please bear in mind the following points:

Model	Part No.	Part Description	Qty/Unit
Tundra	00289-T00KT-DS	T00-Corros Res Kit (CRC Kit)	1
No	e kit above includes t xudol 300S – 3 Liter rker 712AM – 1 Liter	s 🖁	

1. When Ordering CRC Kits Please Note:

- Each kit will contain the proper amount of CRC for one vehicle.
- The CRC kits listed will be drop-shipped from AMREP, not your local PDC. Do not order more than your immediate needs, as these materials are not returnable or refundable.
- Orders for CRC kits should be placed separately from orders of other drop ship chemicals.
- Dealerships without any vehicles on their report should not order kits until you have confirmed an appointment.
- Refer to the Appendix for the Material Safety Data Sheet (MSDS).

2. When Storing the CRC Kits Please Note:

- Follow local, state and federal regulations for hazardous materials storage and disposal that are explained in the Regulated Waste Management Section of the Federal, State and Local Requirements Guide.
- Ensure that the CRC kits are stored at room temperature (refer to the MSDS for detailed instructions).

The CRC application will entail sealing the frame with two different products. The Parker 712AM, a paraffin wax based product, will be applied inside the frame. The Noxudol 300S will be applied to the external surfaces. *Do not use the Noxudol*® *name and trademarks without the prior written consent of Soken Trade Inc. and Toyota Motor Sales, U.S.A., Inc.*

STATE	2000	2001	2002	2003	TOTAL
CT	905	603	764	695	2,967
DE	210	108	153	162	633
IL	1,615	1,120	1,524	1,318	5,577
IN	1,420	826	1,198	1,092	4,536
KY	2,067	1,110	1,304	1,181	5,662
MA	2,315	1,684	2,286	2,331	8,616
MD	1,838	1,152	1,505	1,797	6,292
ME	807	561	721	751	2,840
MI	1,156	626	832	769	3,383
MN	1,322	922	1,337	1,125	4,706
Total	13,655	8,712	11,624	11,221	45,212

STATE	2000	2001	2002	2003	TOTAL
NH	861	611	724	851	3,047
NJ	1,300	893	1,047	1,123	4,363
NY	2,002	1,404	1,726	1,891	7,023
OH	2,385	1,202	1,533	1,480	6,600
PA	2,675	1,658	1,947	1,964	8,244
RI	412	264	347	346	1,369
VA	3,498	2,163	2,783	2,890	11,334
VT	498	322	450	442	1,712
WI	1,621	955	1,329	1,175	5,080
WV	711	419	474	535	2,139
Total	15,963	9,891	12,360	12,697	50,911

Since B0D will be rolled out on a state-by-state bases, the CRC kits will be placed on Manual Allocation Control (MAC).

While the CRC kits are on MAC, a representative from TMS Quality Compliance will review each order and, *if necessary*, contact the dealership's Parts Manager to verify the necessity of the order. This will ensure an adequate and balanced CRC inventory.

If there are **special** circumstances where a dealer is having difficulty receiving its order, dealership associates may leave a voice message at: (310) 468-5516 to research their order. The associate should provide the following information to expedite research of the order status:

- Dealer Information (Dealer Code, Contact Name, Telephone Number)
- Order Reference Number
- Customer Name and Vehicle 17-digit VIN

5. SUPPORT MATERIALS ORDERING

The following support materials can be ordered through your dealer's facing PDC:

Part Number	Part Description	Qty
90950-01824	PLUG for prevention of 712AM dripping.	2 per vehicle
90950-01539	PLUG for prevention of 712AM dripping.	2 per vehicle

The following support materials can be ordered through the MDC:

Part Number	Part Description	Qty
00411-11004	Corrosion-Resistant Compound Customer Information Hang Tag*	1 per
00411-11004	Corrosion-Resistant Compound Customer information hang rag	
00411-11005	Foom Dlug Vit	1 per
00411-11005	Foam Plug Kit	vehicle
	Laminated Quick Reference Guide for the Corrosion Resistant	
00411-11007	Compound Campaign (B0D)	As needed
	(Included in each Service Manager Package)	
00411-11006	ASM Reference Guide – CRC Campaign	As needed

^{*} Additional CRC Customer Information Hang Tags can be ordered in packages of 50 through the MDC.

6. BEFORE YOU START

Review the entire B0D Campaign Dealer Information Packet for legal and regulatory requirements. This packet is broken down into two sections:

- Getting Started Guide
- Federal, State and Local Requirements Guide

The Getting Started Guide and the Federal, State and Local Requirements Guide review these legal requirements, provide step-by-step instructions for how to comply, and include forms to create and maintain compliance records. These guides assume that you will conduct B0D in the vehicle service area of your dealership and in the same location (stall) that was used for LSC 90D.

Note: Carefully read your dealer package even if your dealership uses the same stall that was/is being used for LSC 90D; there still may be permitting and/or other regulation requirements in your specific state.

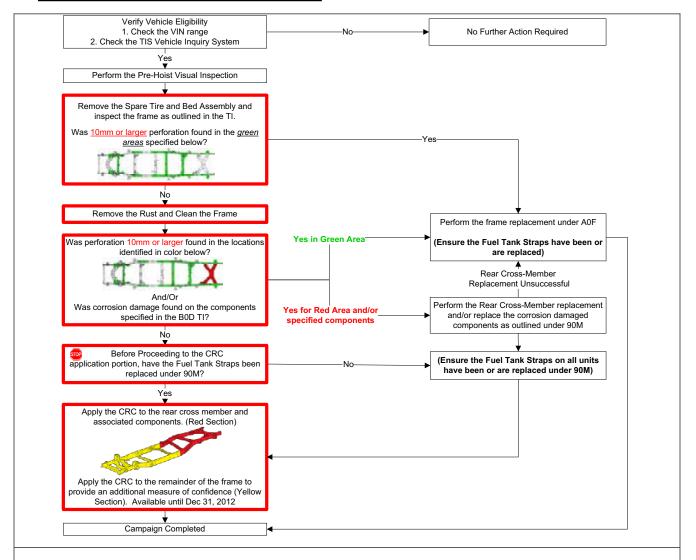
If you feel your facility will not be able to use the same location, please contact the EH&S Hotline at (877) 572-4347. Please note that considerable time, resources, and effort were dedicated to establish your current location. Based upon the circumstances, TMS may not be able to assist (i.e. permit modification, etc.) in location changes.

Most dealerships should be able to meet the necessary requirements within three weeks of receiving this package. A B0D Readiness Survey (http://cleandealer.com*) has been created to help track each dealership's preparation. Toyota's business partner, KPA, will be contacting each dealership to facilitate the survey and provide additional support to your dealership. *Once the Readiness Survey indicates a dealership has met all the necessary requirements, Special Equipment Kits (spray gun kit) will automatically be mailed to that facility at no charge.*

Please note, before starting B0D all dealer associates involved with this campaign must be properly trained using the Dealer Information Packet, Laminated Quick Reference Guide for the Corrosion-Resistant Compound Campaign (B0D), and these Technical Instruction. Training should be documented in the associate training log.

*Follow the SR-B0D Support link located in the left bottom corner of the Clean Dealer webpage. Accessing and using this website will be similar to the procedure used for LSC 90D. Your dealership should have access to the Clean Dealer website. If you are having difficulty accessing or using the website, please contact the Environmental Health and Safety (EH&S) Hotline at (877) 572-4347.

7. WARRANTY PROCESSOR INSTRUCTIONS



Operation Codes:

Operation Codes and applicable sublets will be provided shortly. We apologize for the delay, but in the meantime, please continue preparing your dealership to conduct this campaign.

Once Operation Codes and sublets are available, your dealership will receive a communication from your region informing you of the appropriate Operation Codes and sublets. At that time, this information will also be posted to the Clean Dealer Website (http://cleandealer.com). Follow the SR B0D Support Link located in the left bottom corner of the Clean Dealer webpage. If you are having difficulty accessing or using the website, please contact the Environmental Health and Safety (EH&S) Hotline at (877) 572-4347.

TECHNICAL INSTRUCTIONS FOR CORROSION-RESISTANT COUMPOND CAMPAIGN B0D

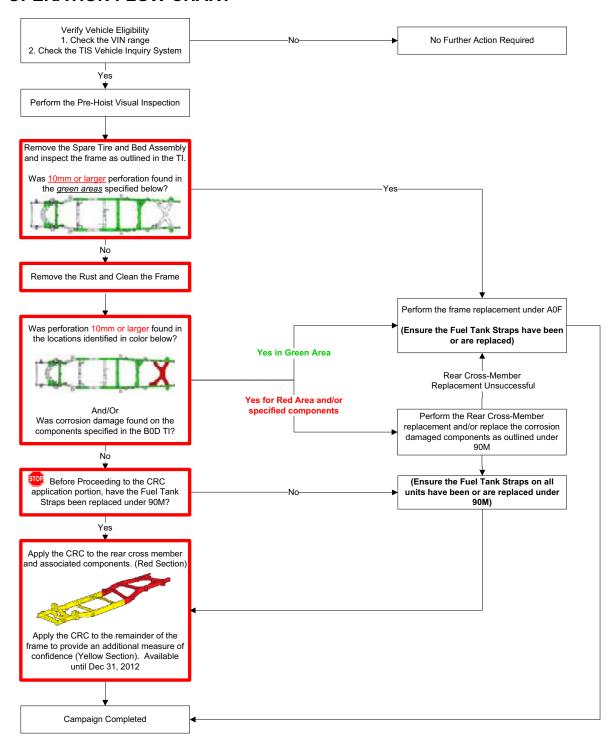
CERTAIN 2000 THROUGH 2003 MODEL YEAR TUNDRA

CORROSION-RESISTANT COMPOUND APPLICATION



- For a complete list of Site Selection Guidelines and, Fire, Building, and Zoning Codes information for your state, please refer to the <u>Dealer Information Packet</u>. Please ensure your dealership complies with all regulations set forth in this packet.
- Keep records to comply with Federal/State/Local regulations and requirements. See the Federal, State & Local Requirements Guide (provided at the time of B0D launch) and any Supplements to that Guide.

I. OPERATION FLOW CHART



Note: Ensure to follow the entire procedure and perform all steps completely (e.g. inspection, cleaning/rust removal, CRC application, <u>one kit per vehicle</u>, etc.) any deviation will be subject to warranty claim debit.

IDENTIFICATION OF COVERED VEHICLES

A. COVERED VIN RANGE

Model	WMI	Year		VIN Range
Model	AAIAII	rear	VDS	Range
			BN441	S001001 - S125840
			BN481	S001001 - S001001
		l i	BT441	S001001 - S125901
			BT481	S001001 - S125894
			JN321	S001001 - S125878
		2000	KN421	S001001 - S123980
		2000	KN441	S001001 - S051314
			KT441	S001001 - S125833
	5TB		RN341	S001001 - S125859
			RN381	S001001 - S001003
Tunden			RT341	S001001 - S125904
Tundra			RT381	S001001 - S125897
			BN441	S125937 - S220312
			BT441	S125905 - S220327
			BT481	S064334 - S220350
			JN321	S126112 - S220343
		2001	KN441	S064852 - S064852
		2001	KT421	S090565 - S217964
			KT441	S125921 - S220297
			RN341	S125909 - S220341
			RT341	S125907 - S220347
			RT381	S064333 - S220345

Model	wmi	V		VIN Range
Model	AAIAII	Year	VDS	Range
			BN441	S220394 - S332707
			BT441	S219294 - S332720
			BT481	S219295 - S332685
			JN321	S220351 - S332714
		2002	KT421	S220380 - S328382
		100000000000000000000000000000000000000	KT441	S220392 - S332706
			RN341	S220353 - S332719
	1		RT341	S220360 - S33272
Tundra	ETD		RT381	S220365 - S332666
Tundra	DIB	5TB	BN441	S332744 - S434010
			BT441	S316368 - S439612
	7		BT481	S306031 - S439613
			JN321	S332745 - S436914
		2003	KT421	S332818 - S414089
		TOVE SCRIPT	KT441	S330788 - S439601
			RN341	S307943 - S436915
			RT341	S306032 - S439732
			RT381	S308386 - S439716

Notes:

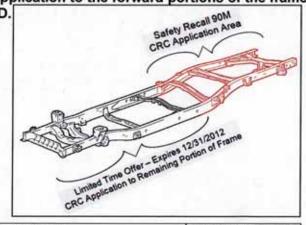
Vehicles <u>currently registered in or originally sold in the Cold Climate States* or the District of Columbia (D.C.)</u> and have no significant corrosion found** are eligible for Corrosion-Resistant Compound (CRC) application to the rear portion of the frame under B0D, as explained under Safety Recall 90M.

 Vehicles <u>currently registered in the Cold Climate States* or D.C.</u> and have no significant corrosion found**, are also eligible for CRC application to the forward portions of the frame

under the limited time offer provided with B0D.

 Check Dealer Daily/TIS to confirm the VIN is covered in B0D. This will verify the vehicle is covered and has not already been completed prior to dealer shipment or by another dealer.

 TMS warranty will not reimburse dealers for repairs conducted on vehicles that are not covered or were completed by another dealer.



CRC Application	Applicable Vehicles	Expiration Date
Safety Recall 90M CRC Application Remedy	Vehicles currently registered in or originally sold in the Cold Climate States or D.C.	Currently No Expiration
Limited Time Offer Forward Portion of the Frame	Vehicles currently registered in the Cold Climate States or D.C.	12/31/2012

* CT, DE, IL, IN, KY, MA, MD, ME, MI, MN, NH, NJ, NY, OH, PA, RI, VA, VT, WI, and WV

** Refer to section V. for inspection procedures and criteria.

III PREPARATION

A. PARTS

Please be aware that **only** dealers in Cold Climate States will be allowed to order the following CRC kit.

A UIO State Matrix is listed to inform dealers of the number of vehicles in their state by model year.

STATE	2000	2001	2002	2003	TOTAL
CT	905	603	764	695	2,967
DE	210	108	153	162	633
IL	1,615	1,120	1,524	1,318	5,577
IN	1,420	826	1,198	1,092	4,536
KY	2,067	1,110	1,304	1,181	5,662
MA	2,315	1,684	2,286	2,331	8,616
MD	1,838	1,152	1,505	1,797	6,292
ME	807	561	721	751	2,840
MI	1,156	626	832	769	3,383
MN	1,322	922	1,337	1,125	4,706
NH	861	611	724	851	3,047
NJ	1,300	893	1,047	1,123	4,363
NY	2,002	1,404	1,726	1,891	7,023
OH	2,385	1,202	1,533	1,480	6,600
PA	2,675	1,658	1,947	1,964	8,244
RI	412	264	347	346	1,369
VA	3,498	2,163	2,783	2,890	11,334
VT	498	322	450	442	1,712
WI	1,621	955	1,329	1,175	5,080
WV	711	419	474	535	2,139
TOTAL	29,618	18,603	23,984	23,918	96,123

The necessary CRC kits can be ordered through Dealer Tire (Complete Maintenance Care). The CRC kits will be shipped directly from AMREP. Your dealership should not order kits if you do not have any vehicles listed on your dealer reports until you have confirmed an appointment. However, please keep in mind it will take at least 5 business days for CRC kit delivery.

Model	Part No.	Part No. Part Description			Qty/Unit
Tundra	00289-T00KT-DS	T00-Corros Res Kit	1		
No	e <u>kit above includes tl</u> oxudol 300S – 3 Liter rker 712AM – 1 Liter	S	₩ <u>%</u>		Profession of the Control of the Con

3. When Ordering CRC Kits Please Note:

- The CRC kits listed will be drop-shipped from AMREP, not your local PDC. Do not order more than your immediate needs, as these materials are not returnable or refundable.
- Orders for these parts should be placed separately from orders of other drop ship chemicals.
- Refer to the Appendix for the Material Safety Data Sheet (MSDS).

4. When Storing the CRC Kits Please Note:

- Follow local, state and federal regulations for hazardous materials storage and disposal that are explained in the Hazardous Waste Management Section of the Federal, State and Local Requirements Guide of the Dealer Information Packet.
- Ensure that the CRC kits are stored at room temperature (refer to the MSDS for detailed instructions).

B. SUPPORT MATERIALS

The following support materials can be ordered through the dealer's facing PDC:

Part Number	Part Description	Qty
90950-01824	PLUG for prevention of 712AM dripping.	2 per vehicle
90950-01539	PLUG for prevention of 712AM dripping.	2 per vehicle

• The following support materials can be ordered through the MDC:

Part Number	Part Description	Qty
00411-11004	Corrosion-Resistant Compound Customer Information Hang Tag*	1 per
00411-11004	Corrosion-resistant Compound Customer information riang rag	vehicle
00411 11005	Foom Dlug Kit	1 per
00411-11005	Foam Plug Kit	vehicle
00411-11006	ASM Reference Guide – CRC Campaign	As needed
	Laminated Quick Reference Guide for the Corrosion Resistant	
00411-11007	Compound Campaign (B0D)	As needed
	(Included in each Service Manager Package)	

^{*} Additional CRC Customer Information Hang Tags can be ordered in packages of 50 through the MDC.

C. STANDARD TOOLS & EQUIPMENT

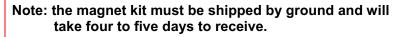
- Standard hand tools
- Flat chisel
- Scraper
- Wire brush
- Air nozzle
- Infrared thermometer
- Air coupler (quantity 2)

SPECIAL EQUIPMENT

The items below are pre-packaged as a kit and will be provided at no charge to participating dealers in the covered states. These items will be automatically shipped **once the readiness is confirmed** and indicates your dealership has met all the necessary requirements on the KPA C.L.E.A.N Dealer website:

Magnet Kit

30 Rare Earth Magnets – See section VI.D.1 "Attach Plastic Sheet" for details.



Spray Gun Kit – for Noxudol 300S

- Spray Gun with Bottle
- Pressure Regulator
- External Spray Nozzle (to be used on the outside of the frame)

Note: Due to federal, state and local regulations, it is anticipated each dealer will use the same 712AM spray gun that is currently being used for LSC 90D when applying the 712AM to the inside of the Tundra frame.



Equipment	Purpose	Vehicle	Shipping Date
Spray Gun	Noxudol 300S	Tundra	Once the B0D Readiness Survey is 100%
Spray Gun	712AM	Tacoma/Tundra	Provided at the time LSC 90D Phase 1 Launch
Spray Gun	X128T	Tacoma	Provided at the time LSC 90D Phase 1 Launch

^{*}Follow the SR-B0D Support link located in the left bottom corner of the C.L.E.A.N DEALER webpage.





D. MATERIALS & SUPPLIES (Locally Procured by Dealer)

- Protective eyewear
- Dust mask
- Appropriate NIOSH approved respirator** (Follow all Federal, State, Local Environmental, Health and Safety Requirements such as OSHA Regulations. Please refer to the MSDS for details on the appropriate mask for each CRC.)



**Notes:

- Refer to the MSDS located in the Appendix for additional information on respirator use.
- It is up to the individual dealership to ensure compliance with OSHA regulations.
- If you require further assistance in regards to NIOSH approved respirators, we have found 3M® to be a useful reference/source.

3M® Technical Assistance: 1-800-243-4630 **3M® Customer Service:** 1-800-328-1667

3M® Web Site: <u>www.3m.com/occsafety</u>

- Protective gloves
- Chemical Resistant Gloves (refer to MSDS for specific type)
- Masking tape
- Fire-retardant poly sheeting (tarp) or covering (if you cannot purchase the tarp from a local supplier, please refer to *CRC Tips and Examples* located on the C.L.E.A.N. DEALER website (http://cleandealer.com) for a list of possible suppliers)
- Plastic (Saran Wrap) sheet (for spray gun storage)
- Partitions (The type, size, and number of partitions used will depend on each dealer's facility.)
- Shop cloth/paper towels
- Funnel (quantity = 2)
- Plastic sheet for collection of dripping sealant during internal frame application, (118in x 118 in)
- Garbage Bags

IV BACKGROUND AND COMPONENTS

On certain 2000 through 2003 model year Tundra vehicles operated in cold climate areas with high road salt use (Cold Climate States) excessive corrosion may be exhibited on the Rear Cross-Member of the frame. In limited circumstances, the spare tire stowed under the truck bed may become separated from the Rear Cross-Member. Spare tire separation will create a road hazard for following vehicles and could cause a crash without prior warning.

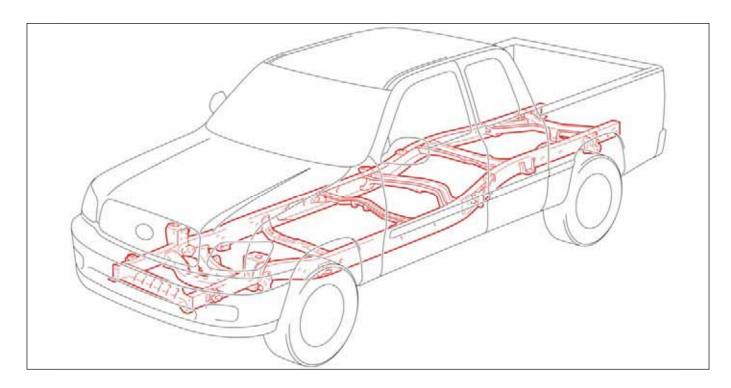
Eventually, excessive corrosion of the Rear Cross-Member may also affect the functionality of the rear brake line at the proportioning valve. If this occurs, it can lead to the loss of the rear brake circuits, which will increase vehicle stopping distances and could cause a crash without prior warning.

In addition, excessive corrosion may also be exhibited on the fuel tank mounting system, which includes two other cross-members and Fuel Tank Straps. In the worst case, the fuel tank may drop to the ground and be dragged or separate from the vehicle. This may create a road hazard which could cause a crash without prior warning or possibly a fire.

Exposure to cold climate and high road salt usage conditions are primary contributors. This is unrelated to, and separate from, normal surface rust which is commonly found on metallic surfaces after some years of usage and/or exposure to the environment.



- Because of variations in State and local laws, dealerships conducting B0D in certain states may require government approvals <u>prior to</u> starting the campaign. Depending upon the state, dealerships also may be subject to restrictions on the number of vehicles to which the CRC can be applied in any single day, week, or month. Please refer to the Getting Started Guide and the Federal, State and Local Requirements Guide (located in the *Dealer Informaton Packet*) and any Supplements for important information about any such approvals or restrictions that may apply to your dealership. Your dealership must adhere strictly to these requirements.
- For a complete list of Site Selection Guidelines and, Fire, Building, and Zoning Codes information for your state, please refer to the <u>Dealer Information Packet</u> (provided at the time of B0D launch) as well as any Supplements. Please ensure your dealership complies with all regulations and all issued packets and instructions.

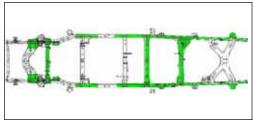


V VEHICLE INSPECTION WORK PROCEDURE

Note: Ensure to follow the entire procedure and perform all steps completely (e.g. inspection, cleaning/rust removal, CRC application, one kit per vehicle, etc.) any deviation will be subject to warranty claim debit.

A. FRAME RUST CORROSION PERFORATION INSPECTION

VISUALLY INSPECT FOR FRAME PERFORATION AND COMPONENTS FOR CORROSION DAMAGE



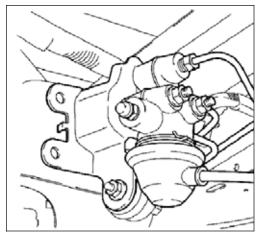
a) Visually inspect the specific area highlighted in green for visual signs of perforation before racking the vehicle.

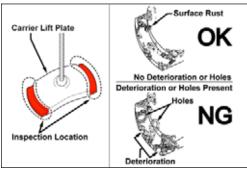
Note: Document any vehicle damage found during the visual inspection prior to beginning work.

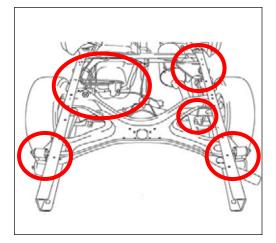
- b) If rust perforation of <u>10mm or larger</u> is found in the green areas, proceed to LSC A0F Frame Replacement.
- c) Remove the spare tire.
- d) Remove the rear bumper assembly.
- e) Remove the Bed Assembly (Refer to appendix; section C.).

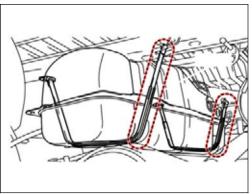
Note: Bed removal is required to perform a proper frame inspection, to ensure proper cleaning, and to ensure adequate rust removal from cross-members.

- f) Inspect the Rear Frame Cross-Member for rust perforation that is 10mm or larger.
 - If rust perforation on the Rear Cross-Member is 10mm or larger the Rear Cross-Member will need to be replaced under 90M.
 - Proceed with the rest of the inspection and frame cleaning prior to replacement of any components under 90M.









- g) Inspect the Load Sensing Proportioning Valve (LSPV) for excessive rust corrosion damage.
 - 1. If there are signs of excessive rust and brake fluid leakage on the LSPV, make a note and continue with the rest of the inspection.
 - 2. With one hand using minimal force, attempt to wiggle the valve bracket and valve body.
 - If the valve bracket, valve body and/or associated components are loose, or show any signs of leakage, make note and continue with inspection.
- h) Inspect the spare tire carrier lift plate as shown.
- i) If spare tire carrier shows deterioration as shown in box (NG), make note and continue with inspection.

- j) Inspect surrounding components and adjacent areas:
 - Brake lines
 - Fuel lines
 - Exhaust pipe brackets
 - Steering components and power steering lines
 - Suspension mounts

Notes:

- If there is perforation and/or breakage of the specified components or adjacent areas due to corrosion replacement of these part(s) will be required.
- If there is fluid leakage of the specified components replacement will be required.
- k) Inspect fuel tank straps to see if they were previously replaced under 90M.
- If any of the components inspected above or the frames Rear Cross-Member requires replacement, these components will need to be replaced under 90M.



Before proceeding with any repairs complete the frame cleaning and rust removal process to ensure perforation is not found during this process.

VI FRAME APPLICATION WORK PROCEDURE



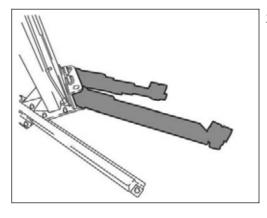
Due to the flash point of the CRC materials, allow sufficient time for the vehicle and
exhaust to cool down before beginning the application process. By following the
FRAME APPLICATION WORK PROCEDURE in these Technical Instructions, the
vehicle will have additional time to cool before the CRC's are applied. Please refer to
the MSDS (Located in the Appendix) for flash point temperatures.

A. WORK AREA SETUP (SUGGESTED)

1. INITIAL SETUP CONSIDERATIONS & GUIDELINES

- a) Work with your Service Manager to locate a dedicated work area and lift with the following requirements.
 - i. In well ventilated area.
 - ii. Away from other vehicles to minimize the possibility of overspray.
 - iii. In a location that can be sectioned off by partitions.
 - iv. In an area that provides sufficient distance from neighboring stalls.
 - v. In an area that meets the minimal space requirements as outlined in Site Selection Guide of the Dealer Information Packet *(provided at the launch of B0D)* and any Supplements.
 - A fire extinguisher, rated "B", "AB" or "ABC", must be located in an area that is within at least 30' of application area.
 - Important Reminder: Because of specific fire and building code requirements, make sure to review the Site Selection Guide of the Dealer Information Packet (provided at the launch of B0D) and any Supplements to ensure that the area where you will conduct the CRC application is compliant with the appropriate requirements.

Note area set up may vary depending on dealership layout. The following information is just one example of how an area might be set up for frame CRC application.

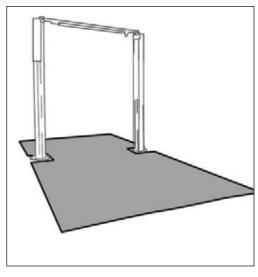


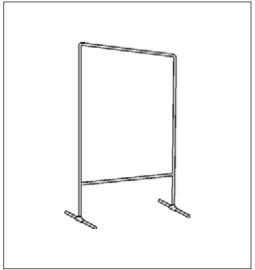
2. MASK THE LIFT SWING ARMS

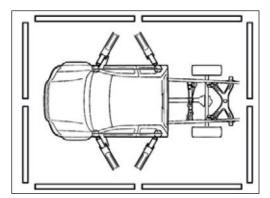
- a) Cover the lift swing arms with fire-retardant poly sheeting (tarp).
- b) Secure the tarp with masking tape.

NOTES:

- A two post above-ground lift is shown for reference purposes.
- Inspect the tarp on a daily basis for damage (cuts, tears, etc.) and replace as necessary.
- Dispose of old tarps in the same manner as other regulated waste at your dealership. Refer to the Dealer Information Packet for more info.







3. WORK AREA SETUP

- a) Cover any exposed section(s) of the lift with fire-retardant poly sheeting (tarp), and secure with masking tape.
- b) Place the fire-retardant tarp(s) as shown in the illustration to protect the floor.

Notes:

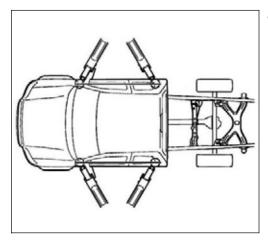
- When laying out the tarp on the floor, be sure it is secure and does not create a slipping hazard when walked upon.
- Inspect the tarp on a daily basis for damage (cuts, tears, etc.) and replace as necessary.
- Dispose of old tarps in the same manner as other regulated waste at your dealership. Refer to the Dealer Information Packet for more information.
- A two post above-ground lift is shown for reference purposes.
- Setup partitions according to the facility needs of your dealership.

Notes:

- The type, size, and number of partitions used will depend on each dealer's facility.
- Set up partitions according to the guidelines established in the Fire, Building, and Zoning Code section of the Dealer Information Packet (provided at the time B0D launch) and any Supplements.
- Partitions should minimize any overspray to nearby stalls, while ensuring adequate ventilation.
- Inspect the partition(s) on a daily basis for damage (cuts, tears, etc.) and repair/replace as necessary.
- Dispose of used partitions in the same manner as other regulated waste at your dealership. Refer to the Dealer Information Packet for more information.
- d) Position the partitions around the vehicle to prevent overspray, as shown in the illustration.

Note: The partitions shown are just an example of what can be used.

B. VEHICLE PREPARATION AND REMOVAL OF FRAME RUST



1. PREPARE THE VEHICLE

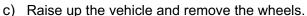
a) It may be necessary to pressure wash the vehicle's frame. depending on its cleanliness.

Note: Time has been allotted to pressure wash the frame in the flat rate time.

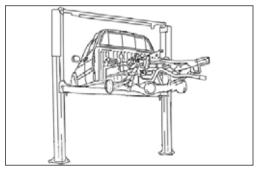
b) Place the vehicle on the lift.



Strap the vehicle to the lift with safety straps. Once the vehicle is raised to the desired height, install screw jacks to the front and back of the vehicle.



- d) Remove the engine under cover.
- e) Cover any identifying label (i.e., VIN label, etc.) on the frame with tape.
- Cover all exposed electrical connectors with tape to protect from over spray.



0

Flat Chisel

2. REMOVE RUST FROM THE FRAME AND CROSS-MEMBERS.

- a) Using a scraper or chisel remove **all** loose rust and rust scales from the frame and cross-members.
- b) If rust perforation of 10mm or larger and/or component corrosion damage is found during the rust removal process proceed to the appropriate campaign for repairs.

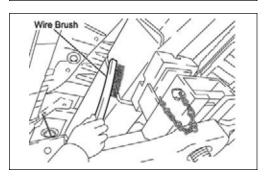


To adequately clean the rear cross members and frame assembly, ensure that the bed and bumper assembly have been removed.



Notes:

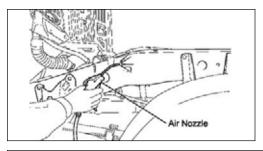
- Make sure to wear protective eyewear, gloves, and a dust mask when removing rust and cleaning frame.
- Be careful not to damage the wire harness or brake line when removing rust.
- Be extremely cautious not to injure your hands.
- DO NOT scratch or remove the identifying labels (i.e., VIN label, etc.) from the frame.



3. CLEAN THE FRAME

a) Use a wire brush and remove any remaining rust or dirt from the frame.

Ensure to follow the procedure and perform all steps completely (e.g. inspection, cleaning/rust removal, CRC application, one kit per vehicle, etc.) any deviation will be subject to warranty claim debit.



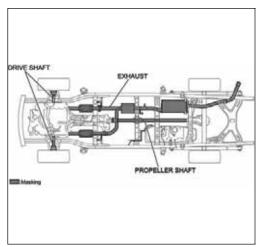
b) Use an air nozzle and remove any loose rust.

Notes:

- Make sure to wear protective eyewear, gloves, and a dust mask when performing this step.
- A slightly wet frame surface (no water droplets) is acceptable when applying the frame CRC.



C. VEHICLE PROTECTION



Tape size : mm (in) 70 (2.76) RH R69r 120 (4.72) 35(1.38) 55(2.17) 100(39) 120 (4.72) 120 (4.72) 120 (4.72)

1. ATTACH MASKING MATERIALS

- a) Using an infrared thermometer ensure the exhaust has cooled.
- b) Cover the driveshaft(s) and exhaust, with fire-retardant poly sheeting (tarp) and secure with masking tape.
- c) Cover the front and rear brake/hub assemblies with garbage bags and secure with masking tape.

Notes:

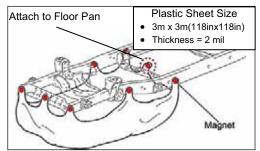
- If necessary, cover the shock absorber with masking sheets.
- Overspray onto the driveshaft may cause vehicle vibration.
- If the same area is used as 90D ensure all non-flame retardant covers and materials utilized for B0D are removed when performing LSC 90D.

2. COVER SPARE TIRE CONTACT SURFACES ON REAR CROSS-MEMBER

- a) Cover the underside of the rear cross-member with masking tape where the spare tire contacts the rear cross-member.
- b) Cut the tape to the specified size and apply to the rear crossmember surface.

- Tape size and location may very if the customer has changed spare tire size, adjust as necessary.
- Tape will not be centered on cross-member because spare tire carrier is off center.
- Tape will prevent Noxudol 300S from sticking to the tire after spray.

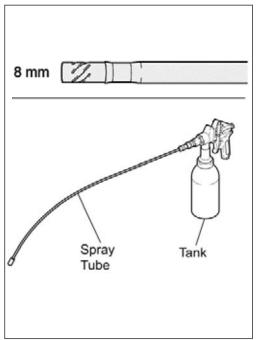
D. PREPARE FOR APPLICATION OF CORROSION-RESISTANT COMPOUND (CRC)



Note: Always utilize the correct CRC kit for Tundra CRC Application, Part Number 00289-T00KT-DS

1. ATTACH PLASTIC SHEET

a) Before spraying 712AM to the internal frame, fit the plastic sheet on the frame utilizing the supplied magnet kit.



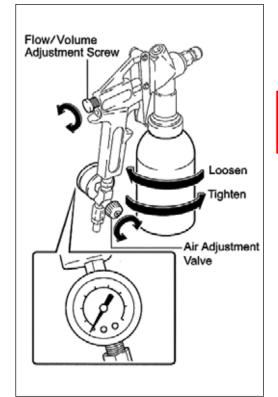
2. SET UP THE SPRAY GUN FOR 712AM <u>INTERNAL</u> CRC APPLICATION

Notes:

- Use a dedicated spray gun for the 712AM internal CRC and mark/label the gun for 712AM.
- Make sure to wear protective eyewear, impervious gloves (Viton, PVOH, etc.) appropriate Niosh approved respirator, and refer to the MSDS located in the Appendix when handling and spraying CRC.
- a) Check the temperature of the 712AM.

Note: If the 712AM is below 72° F, place the 712AM container in a bucket of hot water (<104° F) for 15 minutes and allow it to warm so the proper viscosity is achieved.

- b) Shake the 712AM container well so that the contents are mixed thoroughly. Settling may occur as it sits over time.
- c) Fill the dedicated tank with 712AM, and attach to the spray gun.
- d) Connect the 8mm spray tube, as shown in the illustration.
- e) Adjust the spray gun nozzle flow/volume.
 - 1. Turn the adjustment screw to the fully closed position (clockwise).
 - 2. Then loosen the adjustment screw 4 complete turns.





The air regulator is extremely sensitive; always follow instruction to avoid damage to the gun!

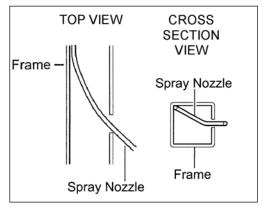
- f) Adjust the air pressure regulator.
 - 1. Place the nozzle in a clean empty box or pail.
 - 2. Adjust the air regulator completely closed (No Air Flow)
 - 3. Attach the air hose to gun.
 - 4. Fully press the spray gun trigger, and slowly adjust the air pressure to 72.5 psi.

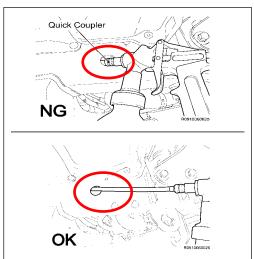
Note: The air regulator has a slight delay and may take up to 10 seconds before the air pressure stabilizes. Move the adjustment knob in very small increments (1/8 turn).

5. Recycle the amount sprayed out and use it during the application process.

Note: DO NOT bend the spray tube.

E. 712AM INTERNAL FRAME CRC APPLICATION





1. 712AM INTERNAL FRAME APPLICATION

 a) Insert the spray nozzle into the selected holes located throughout the frame. Reference the next page for the location, depth, and application rate.

Note: DO NOT bend (i.e., kink) the spray nozzle.

- b) Once the location, depth, and application rate is confirmed, begin applying CRC to the internal frame.
- c) When inserting the nozzle, insert so the nozzle touches the opposite side of the frame as illustrated on the left. See Diagram 1 & 2 for applying CRC.

Note: Make sure the quick coupler on the spray tube does not come into contact with the frame when applying the 712AM. Contacting the frame with the quick coupler may lead to a hose disconnection.

d) After the 712 AM has been applied, wipe away any wax on the frame's exterior with cloths or paper towels.

- Follow all MSDS guidelines for the 712AM which can be found in the Appendix.
- Follow the given application speeds when applying the 712AM to the inner surface of the frame.
- The exact insertion point locations may vary depending on the cab configuration.

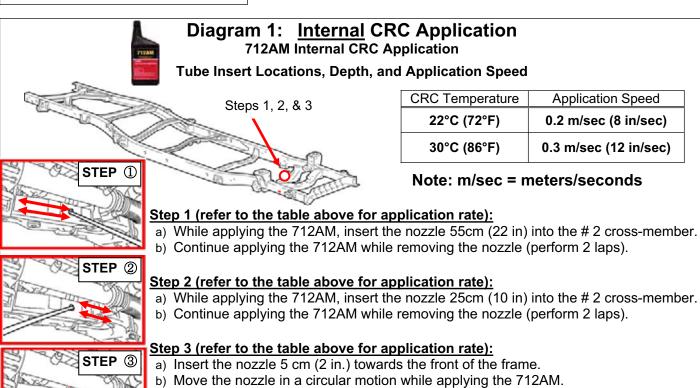
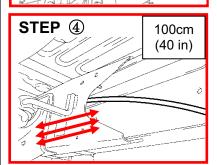


Diagram 2: Internal CRC Application 712AM Internal CRC Application Tube Insert Locations, Depth, and Application Speed CRC Temperature **Application Speed** Rr 22°C (72°F) 0.2 m/sec (8 in/sec) 30°C (86°F) 0.3 m/sec (12 in/sec) Step 4 Note: m/sec = meters/second Fr STEP (1) 30cm (12 in) ►Step 1, 2, & 3 Step 1 (refer to the table above for application rate): While applying the 712AM, insert the nozzle 30cm (12 in) into the side-rail. b) Continue applying the 712AM while removing the nozzle. STEP ② 90cm Step 2 (refer to the table above for application rate): (36 in) While applying the 712AM, insert the nozzle as far as it will go. b) Continue applying the 712AM while removing the nozzle. Repeat Steps 1 & 2 for a total of 2 laps Step 3 STEP ③ c) Insert the nozzle 5 cm (2 in.) towards the front of the frame. d) Move the nozzle in a circular motion while applying the 712AM.

Note: Make sure to only insert the nozzle 5cm (2 in) to avoid over spraying onto the engine.



Step 4 (refer to the table above for application rate):

- a) While applying the 712AM, insert the nozzle as far as it will go (contact the top center of the frame while inserting nozzle).
- b) Continue applying the 712AM while removing the nozzle.
- c) Repeat the step a) to c) two more times (**Total: 3 laps**)

Repeat Steps 1 – 4 on the opposite frame rail.

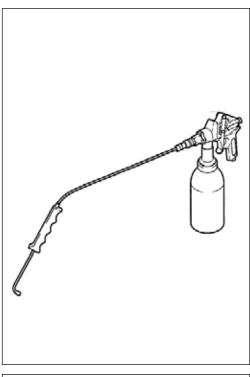


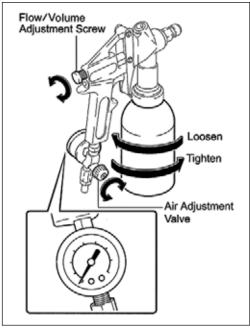
THE ENTIRE LITER MUST BE APPLIED TO THE FRAME!

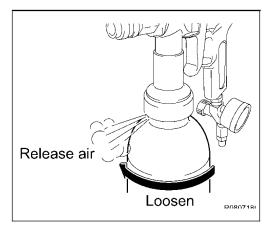


- Follow all MSDS guidelines for the 712AM which can be found in the Appendix.
 - Only one side is given. Tube insert locations are the same for both sides.
- Follow the given application speeds when applying the 712AM to the inner surface of the frame.
 - The exact insertion point locations may vary depending on the cab configuration.

F. APPLICATION OF NOXUDOL 300S EXTERNAL CRC APPLICATION







- 1. LOWER THE VEHICLE
- 2. SETTING UP THE SPRAY GUN FOR NOXUDOL 300S EXTERNAL FRAME CRC APPLICATION

Notes:

- Use a dedicated spray gun for the NOXUDOL 300S and mark/label the gun for NOXUDOL 300S (external CRC).
- Make sure to wear protective eyewear, chemical resistant gloves, appropriate NIOSH approved respirator, and refer to the MSDS located in the Appendix when handling and spraying CRC.
- a) Check the temperature of the Noxudol 300S.

Note: If the Noxudol 300S is below 72° F, place the Noxudol 300S container in a bucket of hot water (<104° F) for 15 minutes and allow it to warm so the proper viscosity is achieved.

- b) Shake the Noxudol 300S container well so that the contents are mixed thoroughly. Settling may occur over time.
- c) Fill the dedicated tank with Noxudol 300S and attach it to the spray gun.
- d) Connect the external spray tube, as shown in the illustration.
- e) Adjust the spray gun nozzle flow/volume.
 - 1. Turn the adjustment screw to the fully closed position (clockwise).
 - 2. Then loosen the adjustment screw 3.5 turns.



- f) Adjust the air pressure regulator.
 - 1. Place the nozzle in a clean empty box or pail.
 - 2. Completely close the air regulator (No Air Flow).
 - 3. Attach the air hose to the gun
 - 4. Fully press the spray gun trigger, and slowly adjust the air pressure to 50 psi.

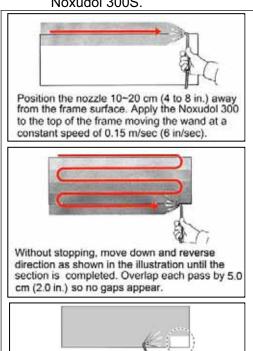
Note: The air regulator has a slight delay and may take up to 10 seconds before the air pressure stabilizes; Move the adjustment knob in very small increments (1/8 turn).

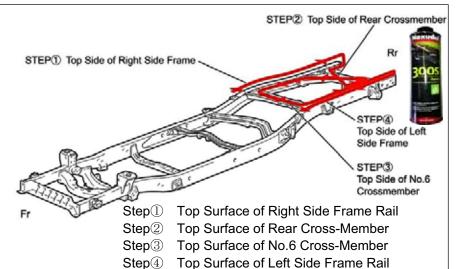
- 5. Recycle the amount sprayed out and use it during the application process.
- g) For Noxudol 300S, it will be necessary to refill the spray gun.
 - 1. Disconnect the air hose
 - Loosen the bottle to slowly discharge the pressure through the threads of the bottle.
 - 3. After all the pressure is discharged, detach the bottle.

- DO NOT remove the bottle until the pressure is released.
- DO NOT pull the spray gun trigger when the air hosed is disconnected, this causes CRC to backflow into the air inlet.
- Thoroughly shake the Noxudol 300S liter before use.
- Apply <u>all</u> three liters of Noxudol 300S to the left and right frames and the cross-members. (No product is allowed to remain.)

3. NOXUDOL 300S EXTERNAL WAX APPLICATION

a) Reviewing the application process for the top surface of the cross-member and frame, begin applying Noxudol 300S.

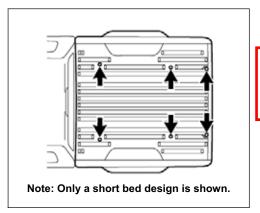




Notes:

- Discharge rate varies depending on CRC temperature. Make spray speed adjustment as needed. Do not adjust air pressure.
- A large amount of overlap is required to achieve adequate CRC thickness.
- Keep the wand positioned as close to the specified distance as possible.
- Always wear protective eyewear, chemical-resistant gloves, appropriate NIOSH approved respirator, and refer to MSDS located in the Appendix when performing this procedure.

G. PREPARE VEHICLE FOR UNDER VEHICLE NOXUDOL 300S APPLICATION



After the entire area has been completed,

missed.

inspect and spray any areas that may have been

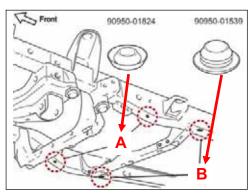
1. RE-INSTALL BED AND REAR BUMPER ASSEMBLY (See Appendix, section D)

STOP N

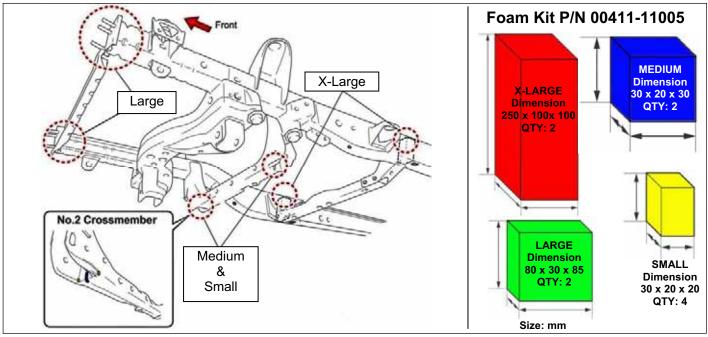
Note: Bed assembly must be re-installed after applying Noxudol 300S to the rear portion of the frame, in order to reduce overspray from adhering to the vehicles painted surfaces.

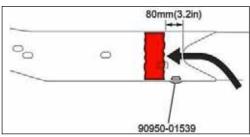
- 2. RAISE THE VEHICLE
- 3. REMOVE PLASTIC MAGNETS AND PLASTIC SHEET
- 4. REMOVE ANY 712AM WAX FROM THE EXTERNAL FRAME SURFACE. ANY REMAINING 712AM WAX WILL PREVENT THE NOXUDOL 300S WAX APPLICATION FROM APPLYING.

H. INSTALLATION OF BODY PLUGS AND FOAM PLUGS



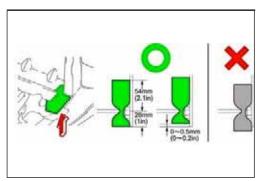
- 1. INSTALL THE BODY PLUGS TO STOP 712AM FROM DRIPPING FROM THE FRAME
 - a) With a cloth wipe off any drips of 712AM dripping from the fame.
 - b) Before installing the body plugs, confirm that the excess 712AM has stopped dripping from the frame
 - c) Install body plug 90950-01824 in the 2 holes identified by the A.
 - d) Install the body plug 90950-01539 in the 2 holes identified by the **B**.





2. INSTALL X-LARGE FOAM PIECE INTO THE END OF EACH BOX CHANNEL

- a) Compress the foam piece and slide it into the end of the box channel toward the front of the vehicle.
- b) Ensure the foam piece is secure in the frame and is in front of the body plug.
- c) Repeat foam installation on the other frame rail.

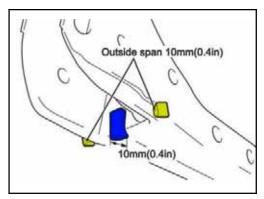


3. INSTALL LARGE FOAM PIECE IN FRONT OF FRAME

a) Compress the large foam piece and work it through the hole in front of the frame.

Note: Be careful not to use too much force while installing the sponge as it can tear easily.

- b) Ensure the foam piece is secure and is under flush with the bumper mount.
- c) Repeat foam installation on the other frame rail.



4. INSTALL <u>MEDIUM</u> AND <u>SMALL</u> FOAM IN THE NUMBER 2 CROSS-MEMBER.

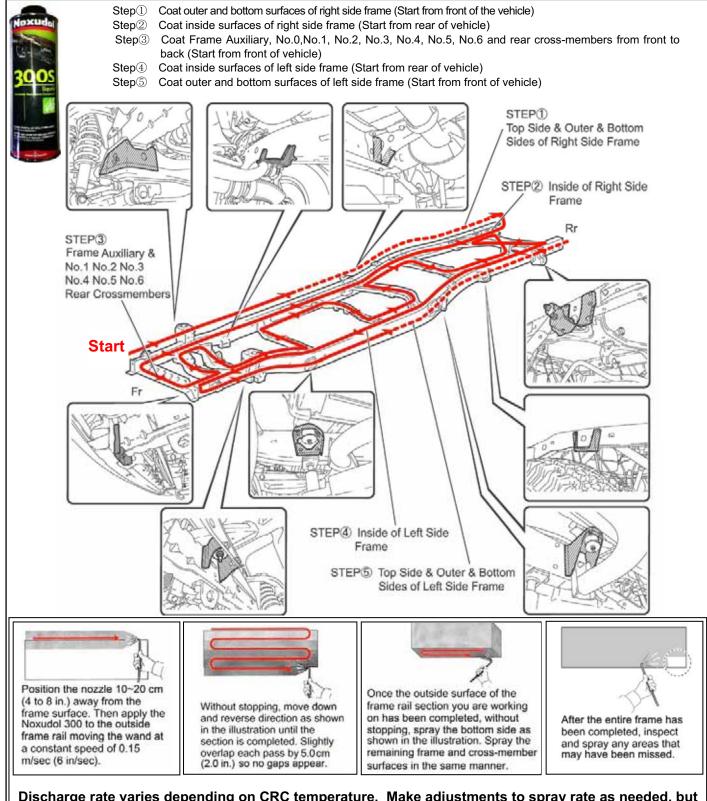
 a) Compress the foam and work into the holes at the ends of the number 2 cross-member as indicated in the diagram.

Note: Be careful not to use to much force while installing the sponge as it can tear easily.

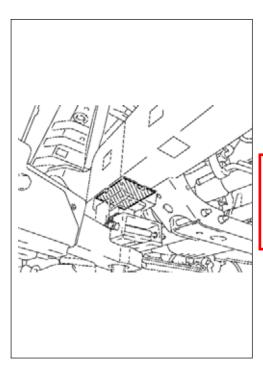
- b) Ensure the foam piece is secure and has been completely installed as shown.
- c) Repeat for all six holes on the number 2 cross-member

I. UNDER VEHICLE NOXUDOL 300S CRC APPLICATION

1. AFTER REVIEWING THE APPLICATION PROCESS OUTLINED BELOW, BEGIN APPLYING NOXUDOL 300S TO THE REMAINING PORTIONS OF THE EXTERNAL FRAME.



Discharge rate varies depending on CRC temperature. Make adjustments to spray rate as needed, but do not change air pressure (air pressure must be 50 psi).



- a) Re-install the engine undercover.
- b) Re-install wheels and torque to spec.

Torque Spec: 110 N m (1121 kgf cm, 81 ft lbf)

- c) Lower the vehicle.
- d) For areas where the lift arms touched, remove any rust present and apply Noxudol 300S.



Ensure to follow the procedure and perform all steps completely (e.g. inspection, cleaning/rust removal, CRC application, <u>one kit per vehicle</u>, etc.) any deviation will be subject to warranty claim debit.

- e) Raise the vehicle.
- f) Remove all masking tape, fire retardant sheeting, and plastic coverings..
- g) Lower the vehicle.
- h) Install the spare tire.
- i) Remove protective tape from the identifying labels (VIN label, etc.) on the frame.
- j) Place a Corrosion-Resistant Compound information Hang Tag on the rear-view mirror.
- k) Let CRC cure approximately 24 hours before returning vehicle to customer.

STORING THE SPRAY GUN (Spray Guns do not require cleaning if they are properly stored)

- a) Spray Gun Storage (when the spray guns are not in use follow the procedure outlined below)
 - 712AM Internal Frame Application Spray Gun:
 - Remove the air hose from the spray gun.
 - Loosen the spray gun from the canister to release the air pressure. To minimize exposure to the air, once the air pressure is released retighten the spray gun to the canister.
 - Leave the spray tube on the spray gun and place the originally equipped nozzle cap on the tip.
 - NOXUDOL 300S External Frame Application Spray Gun
 - Remove the air hose from spray gun.
 - Loosen the spray gun from the canister to release the air pressure. To minimize exposure to the air, once the air pressure is released retighten the spray gun to the canister.
 - Leave the spray tube on the spray gun and wrap the tube tip with saran wrap. Seal the saran wrap with a rubber band.

RECORD-KEEPING AND OTHER REQUIREMENTS

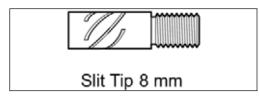
To make sure that your dealership can satisfy specific state and local requirements, please refer to your specific state Dealer Information Packet (provided at the time of B0D launch). Critical requirements are described in the Air Regulation, Air Recordkeeping, and Fire, Building, and Zoning Code Sections of the Federal, State and Local Requirements Guide and in the Site selection Guide, all found in the Dealer Information Packet and Supplements.

VII APPENDIX

A. 712AM & NOXUDOL 300S DISPOSAL

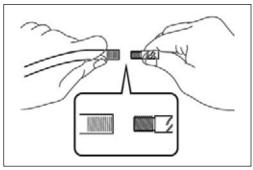
712AM & Noxudol 300S used in the application of the frame CRC as well as any materials, such as tarps with residue, must be disposed of in the same manner as other hazardous waste at your dealership and in accordance with all applicable local, state, and federal regulations. Please refer to the Dealer Information Packet for additional information.

B. REPLACEMENT OF 712AM APPLICATOR NOZZLE

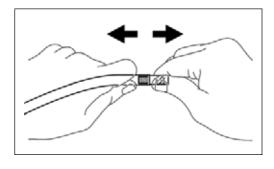


1. NOZZLE REMOVAL AND INSTALLATION

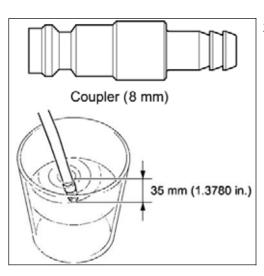
In the event the tip separates from the hose, follow these procedures for repair.



- a) Twist and remove the nozzle from the hose.
- b) Screw the nozzle onto the threaded section of the **NEW** hose at the nozzle connection.



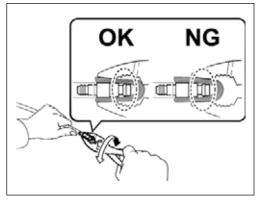
c) Holding both the nozzle and the hose pull to ensure they are securely attached.

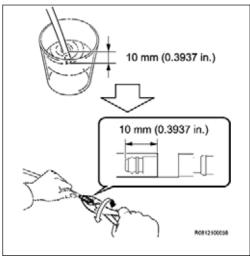


2. COUPLER REMOVAL AND INSTALLATION

a) Immerse the entire coupler in 70°C (158° F) or hotter water for 10 seconds. This will loosen the coupler and allow it to be removed more easily.







b) Immediately after removing the coupler from the hot water, twist and pull to separate the coupler from the hose using pliers and a paper towel.

Notes:

- Place the paper towel between the pliers and the coupler to avoid damage.
- Be careful to place the pliers so as to not damage the connection joint for the spray guns.
- The coupler and nozzle hose may be hot.
- c) Immerse approximately 10mm (0.3937 in.) of the non-threaded section of the *NEW* nozzle hose in 70°C (158°F) or above hot water for 10 seconds.
- d) Immediately after removing the nozzle hose from the hot water, install the coupler to the hose by twisting it.

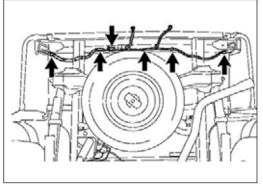
Notes:

- The coupler should be inserted all the way into the hose to ensure it will not detach.
- If the hose has cooled and the coupler cannot be inserted, reheat it with hot water.
- The coupler and hose may be hot.
- e) Once the nozzle hose has cooled to room temperature, hold both the coupler and hose and pull to ensure that they do not separate.

C. TUNDRA BED REMOVAL

1. REMOVE THE FOLLOWING PARTS

- License Plate Lights
- Rear Bumper Assy
- Rear Mudguards (If Equipped)
- · Fuel Tank Filler Pipe Shield
- · Center Rear Bumper Pad
- Trailer Hitch (If Equipped)
- Side Step Assy (If Equipped)



2. REMOVE THE WIRE HARNESS

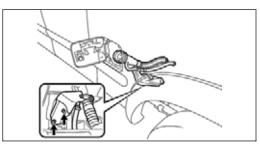
- a) Disconnect the connectors.
- b) Disconnect the clamps and the frame wire harness from the bed assembly.

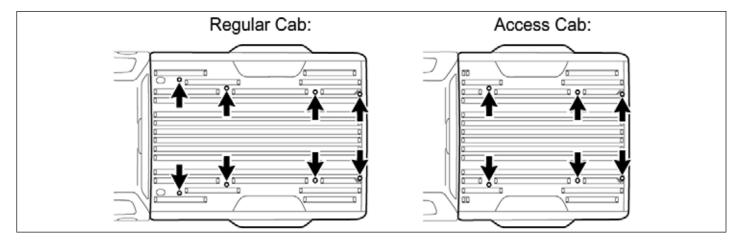
Notes:

- The number of connectors may differ depending on the vehicle specification.
- Be careful not to damage the wire harness clamps when removing them.



a) Remove the 2 nuts and disconnect the fuel inlet pipe.





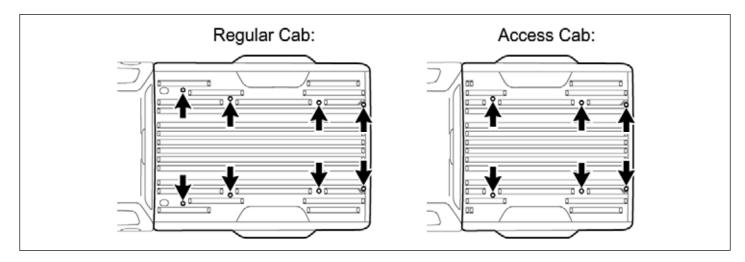
4. REMOVE THE BED ASSEMBLY

a) Using a Torx® T55H Tamper Resistant Socket, remove the Torx ® bolts from the bed assembly

Regular Cab: 8 Torx[®] bolts
 Access Cab: 6 Torx[®] bolts

Note: Use 4 or more people to remove the bed assembly from the frame. Evenly support the bed assembly when removing it.

D. REINSTALL THE BED ASSY



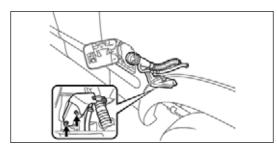
1. REINSTALL THE BED ASSY

a) Using a "TORX" socket wrench (T55), reinstall the bed assy "TORX" bolts and torque to spec.

Torque Spec: 86 N·m (877 kgf·cm, 63 ft·lbf)

NOTE:

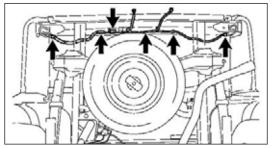
- Use 4 or more people to help with the reinstallation of the bed assembly to the frame.
- Evenly support the bed assembly when reinstalling it.
- Be careful not to damage or hit the fuel inlet pipe when reinstalling the bed assembly.



2. REINSTALL THE FUEL INLET PIPE

a) Reinstall the fuel inlet pipe with the 2 nuts and torque to spec.

Torque Spec: 27 N·m (275 kgf·cm, 20 ft·lbf)



3. REINSTALL THE FRAME WIRE HARNESS

- a) Reconnect the 4 wire harness clamps to the bed assy.
- b) Reconnect the connectors.

NOTE:

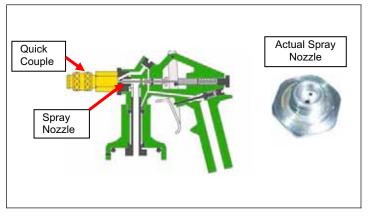
- The number of connectors will differ depending on the vehicle spec.
- Use new clamps if the original ones are damaged.

4. REINSTALL THE FOLLOWING PARTS

- a) Fuel Tank Filler Pipe Shield
- b) Side Step Assembly (If Equipped)
- c) Rear Mudguards (If Equipped)
- d) Trailer Hitch (If Equipped)
- e) Rear Bumper Assembly
 - Reinstall the 10 bolts and torque to spec.
 - For Vehicles Produced On Or Before August 2002 Torque Spec: 80 N·m (815 kgf·cm, 59 ft·lbf)
 - ° For Vehicles Produced After August 2002 Torque Spec: 100 N·m (1019 kgf·cm, 73 ft·lbf)
- f) Center Rear Bumper Pad
- g) License Plate Lights

E. SPRAY GUN TROUBLESHOOTING





1. CONDITION: CRC FLOWS AS LIQUID (NOXUDOL 300S)

<u>Cause:</u> Increasing the air pressure too quickly and having to reduce the regulator pressure.

<u>Background:</u> This condition occurs when the bottle pressure exceeds the regulated air pressure coming into the gun.

Remedy:

- a) Disconnect the Air Hose (**Do not pull the trigger**)
- b) Slowly loosen the bottle to release the air pressure
- c) Release all air pressure from the tank
- d) Turn regulator off, completely shut
- e) Reconnect the air hose
- f) Fully pull the trigger
- g) Slowly adjust the regulator to the required air pressure (1/8 turn at a time allowing the, regulator time for the pressure to stabilize.

2. IF RESETTING AIR PRESSURE IS NOT SUFFICENT, CLEAN THE SPRAY NOZZLE WITH SHOP AIR.

- a) Disconnect External Spray Wand
- b) Remove Quick Coupler (Brass Color)
- c) Remove Spray Nozzle (Silver Colored)
- d) Clean Spray Nozzle orfaces with shop air
- e) Reassemble in reverse order

Note: Ensure not to damage or loose the oring that is behind the spray nozzle.

F. MSDS Sheets

•	Noxudol 300S	page 26
•	712AM	page 35



Last Updated April 18, 2011

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Noxudol 300 S Synonyms: None

Product Codes: None Chemical Name: Anti Rust Compound

Product Use: Vehicle Underbody Coating

Manufacturer: Auson AB US Distributor: Soken Trade Corporation

Verkstadsgatan 3 12055 Sherman Way S-434 42 Kungsbacka North Hollywood, CA

Sweden USA

PHONE: +46 300-562000 (800) 598-3535 FAX: +46 300-562001 (818) 308-8427

For Chemical Emergency (Spill, Leak, Fire, Exposure, or Accident) Call CHEMTREC Day or Night USA or Canada: 1-800-424-9300 Outside USA or Canada: +1 703-527-3887 (collect calls ok)

PREPARED BY: MSDS Authoring Services ISSUE DATE: April 18, 2011

VERSION: 2 SUPERSEDES DATE: March 1, 2011

2. COMPOSITION / INFORMATION ON INGREDIENTS

CONTAINING: HAZARDOUS AND/OR REGULATED COMPONENTS

Chemical Name	Amount % by Wt.	CAS Number	OSHA PEL (ppm)	ACGIH STEL (ppm)
Solvent-refined heavy paraffinic distillate	30-60%	64741-88-4	5	None
Petroleum sulfonate, calcium salt, calcium hydroxide and calcium carbonate dispersion	20-30%	68783-96-0	None	None
Fatty acids, tall-oil, polymers with isophthalic acid, pentaerythritol and tall oil	10-20%	68410-37-7	None	None
Paraffin and hydrocarbon waxes	10-20%	8002-74-2	None	2 (fume)
Calcium carbonate (limestone) used as filler/pigment	<2%	1317-65-3	15 for total dust; 5 for respirable fraction	10 for total dust; 3 for respirable fraction
Carbon black	1%	1333-86-4	3.5	3.5
Crystalline silica	<0.1%	14808-60-87	10/(%SiO2+2) (respirable)	2.5

California Prop 65: This product may contain trace quantities of chemicals that are identified by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 ("Proposition 65") as either a carcinogenic or reproductive hazard.

HAZARDS DISCLOSURE: This product contains known hazardous materials in reportable levels as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200 except as listed above. As defined under SARA 311 and 312, this product contains known hazardous materials.



Last Updated April 18, 2011

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: CAUTION! COMBUSTIBLE LIQUID.

HMIS/NFPA Rating: See Section 16

POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: Skin contact, eye contact, inhalation and ingestion.

INHALATION: High vapor concentrations may cause headache, dizziness, fatigue, nausea, and vomiting.

INGESTION: May cause abdominal pain, nausea, and vomiting.

SKIN CONTACT: Contact may be irritating to skin. May defat skin.

EYE CONTACT: Contact may be irritating to eyes. May cause stinging.

CHRONIC EXPOSURE: There are currently no known adverse health effects associated with chronic exposure to this product.

ACUTE HEALTH HAZARDS: Moderately irritating to the skin. Slightly irritating to the eyes. May be harmful if inhaled

AGGRAVATION OF PRE-EXISTING CONDITIONS: Persons with pre-existing skin disorders, eye problems, or respiratory function may be more susceptible to the effects of this substance.

TARGET ORGANS: Eyes, skin, and respiratory system.

CARCINOGENICITY:

OSHA: Not listed ACGIH: Not listed NTP: Not listed IARC: Not listed

POTENTIAL ENVIRONMENTAL EFFECTS: Not considered to be harmful to aquatic life.

4. EMERGENCY AND FIRST AID PROCEDURES

- INHALATION FIRST AID: If inhalation is experienced or suspected, move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms persist.
- SKIN CONTACT FIRST AID: In case of contact, immediately flush skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops.
- EYE CONTACT FIRST AID: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately if symptoms persist.
- INGESTION FIRST AID: If swallowed, give a few tablespoons of cooking oil, sour cream, cream, or other liquid fat. Contact the poison control center. DO NOT INDUCE VOMITING unless directed to by a poison control center or physician. Never give anything by mouth to an unconscious person.
- STATEMENT OF PRACTICAL TREATMENT: Always have plenty of water available for first aid. Get medical attention if any symptoms develop or persist.
- NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: This product has low oral, dermal, and inhalation toxicity. Aspiration during swallowing or vomiting may severely damage the lungs.

Soken Trade Corporation

Page 2 of 9



Last Updated April 18, 2011

5. FIRE AND EXPLOSION HAZARD DATA

FLAMMABLE PROPERTIES: Not flammable. Combustible.

AUTO IGNITION TEMPERATURE (ASTM E659): HOT-FLAME AUTOIGNITION TEMPERATURE (AIT): MINIMUM IGNITION TEMPERATURE: 750°F

IGNITION DELAY: 12 Seconds

BAROMETRIC PRESSURE, TORR:

COOL-FLAME AUTOIGNITION TEMPERATURE (CFT):

MINIMUM IGNITION TEMPERATURE: 745°F

IGNITION DELAY: 120 Seconds

BAROMETRIC PRESSURE, TORR:

REACTION THRESHOLD TEMPERATURE FOR PRE-FLAME (RTT):

MIMIMUM REACTION TEMPERATURE: 740°F

LIMITS OF FLAMMABILITY IN GENERAL ACCORDANCE WITH ASTM E-681 AT 200°C

LOWER FLAMMABLE LIMIT (LFL): 1.81 % UPPER FLAMMABLE LIMIT (UFL): See Note

Note: Due to the nature of the sample and its addition into the test apparatus, it is difficult to determine the

upper flammable limit.

FLASH POINT: 140°C 285°F Method Used: ASTM D93

EXTINGUISHING MEDIA: Dry chemical, foam or carbon dioxide.

UNSUITABLE EXTINGUISHING MEDIA: Water spray may be unsuitable.

FIRE & EXPLOSION HAZARDS: Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Containers may explode when involved in a fire.

PRECAUTIONS FOR FIREFIGHTERS: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Toxic gases and vapors may be released if involved in a fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Not applicable

HAZARDOUS DECOMPOSITION OR COMBUSTION PRODUCTS: Not available

6. ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Remove all sources of ignition.

PERSONAL PRECAUTIONS: Wear appropriate protective clothing (see SECTION 8), Isolate release area and deny entry to unnecessary and unprotected personnel.

ENVIRONMENTAL PRECAUTIONS: Do not allow spill to enter sewers or waterways. Do not flush to sewer.

METHODS FOR CONTAINMENT: Contain spill with sand or earth. Do not use combustible materials, such as sawdust

METHODS FOR CLEAN-UP; Collect spilled material and non-combustible absorbent and place in a container for disposal. Clean spill area thoroughly.

OTHER INFORMATION: Report spills to authorities as required.

7. HANDLING AND STORAGE

Soken Trade Corporation

Page 3 of 9



Last Updated April 18, 2011

RECOMMENDED STORAGE CONDITIONS: Keep in a tightly closed original container, at temperatures less than 105°F (40°C). Keep containers closed when not in use.

SHELF LIFE: See label on packaging.

HANDLING (PERSONNEL): Wear appropriate personal protective equipment (see SECTION 8). Avoid contact with eyes. Avoid contact with skin or clothing. Avoid breathing vapors. Use only with adequate ventilation. Wash thoroughly with soap and water after handling. Keep away from heat, flames, and sparks.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS: See Section 2 above.
CAS NO. CHEMICAL NAME

64741-88-4 Solvent-refined heavy paraffinic distillate

mg/m3

OSHA PEL-TWA: 5
OSHA PEL STEL: none
OSHA PEL CEILING: none
ACGIH TLV-TWA: 5
ACGIH TLV STEL: none
ACGIH TLV CEILING: none

68783-96-0 PETROLEUM SULFONATE, CALCIUM SALT, CALCIUM HYDROXIDE

AND CALCIUM CARBONATE DISPERSION

MG/M3

OSHA PEL-TWA: NONE
OSHA PEL STEL: NONE
OSHA PEL CEILING: NONE
ACGIH TLV-TWA: NONE
ACGIH TLV STEL: NONE
ACGIH TLV CEILING: NONE

68410-37-7 FATTY ACIDS, TALL-OIL, POLYMERS WITH ISOPHTHALIC ACID,

PENTAERYTHRITOL AND TALL OIL

MG/M3

OSHA PEL-TWA: NONE
OSHA PEL STEL: NONE
OSHA PEL CEILING: NONE
ACGIH TLV-TWA: NONE
ACGIH TLV STEL: NONE
ACGIH TLV CEILING: NONE

8002-74-2 PARAFFIN AND HYDROCARBON WAXES

MG/M3

OSHA PEL-TWA: NONE
OSHA PEL STEL: NONE
OSHA PEL CEILING: NONE
ACGIH TLV-TWA: 2 (FUME)
ACGIH TLV STEL: NONE
ACGIH TLV CEILING: NONE

CALIFORNIA PROPOSITION 65: This product may contain trace quantities of chemicals that are identified by

Soken Trade Corporation

Page 4 of 9



Last Updated April 18, 2011

the state of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 ("Proposition 65") as either a carcinogenic or reproductive hazard:

1317-65-3 CALCIUM CARBONATE (LIMESTONE)

MG/M3

OSHA PEL-TWA: 15 FOR TOTAL DUST; 5 FOR RESPIRABLE FRACTION

OSHA PEL STEL: NONE

OSHA PEL CEILING: NONE

ACGIH TLV-TWA: 0 FOR TOTAL DUST; 3 FOR RESPIRABLE FRACTION

ACGIH TLV STEL: NONE ACGIH TLV CEILING: NONE

1333-86-4 CARBON BLACK

MG/M3

OSHA PEL-TWA: 3.5
OSHA PEL STEL: NONE
OSHA PEL CEILING: NONE
ACGIH TLV-TWA: 3.5
ACGIH TLV STEL: NONE
ACGIH TLV CEILING: NONE

14808-60-7 CRYSTALLINE SILICA

MG/M3

OSHA PEL-TWA: 10/(%SIO2+2) (RESPIRABLE)

OSHA PEL STEL: NONE OSHA PEL CEILING: NONE

ACGIH TLV-TWA: 0.025 (RESPIRABLE)

ACGIHTLV STEL: NONE
ACGIHTLV CEILING: NONE

(Crystalline Silica and carbon black only present hazards as respirable particles of 10 microns or less. Both are bound in the coating and will not be released as respirable particles)

VENTILATION SYSTEM: A system of local and/or general exhaust is recommended to keep employee exposures below the airborne exposure limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

PERSONAL RESPIRATORS (NIOSH APPROVED): If respirator use is desired, or if exposure limit values are exceeded, use NIOSH approved respirator and type A filters (brown, organic substances).

SKIN PROTECTION: Avoid prolonged skin contact. Chemical resistant (nitrile) gloves recommended for operations where skin contact is likely. Wear appropriate protective clothing or boots as needed. Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.

EYE PROTECTION: Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

GENERAL HYGIENIC PRACTICES: Wash thoroughly with soap and water after handling, before eating, drinking, smoking, or using toilet facilities. Do not smoke during use.

Soken Trade Corporation

Page 5 of 9



Last Updated April 18, 2011

9. PHYSICAL/CHEMICAL CHARACTERISTICS

FORM: Highly viscous liquid COLOR: Black

ODOR: Slight mineral oil like odor BOILING POINT: >390°F (>200°C)

SOLUBILITY IN WATER: Not soluble in water SPECIFIC GRAVITY: 96 at 20°C (68°F) (Water =1)

EVAPORATION RATE: (BuAc=1): Not applicable POUR POINT (ASTM) D97): +30

AUTOIGNITION TEMPERATURE: >750°F 399°C) FLASH POINT: 285°F (140°C) ASTM D93

pH: Not available PERCENT SOLIDS BY WEIGHT: 98.9%

VISCOSITY: 500-650 Mpas - 73.4°F (23°C)

VOLATILE ORGANIC COMPOUNDS (VOC): 10.7 g/L using EPA Method 24

COLD FREEZE POINT (ASTM D97): +25

FREEZING POINT (ASTM D1177): This sample was too viscous to permit determination of its freeze point by

ASTM 1177.

VAPOR PRESSURE By Isoteniscope (ASTM D2879), torr:

32°F	0.28
68°F	1.0
100°F	2.7
150°F	11
200°F	34
250°F	90
300°F	160
350°F	270
400°F	426
450°F	600
485°F	760

10. STABILITY AND REACTIVITY

STABILITY: Stable under ordinary conditions (70°F (21°C) and 14.7 psig (760 mmHg)), of use and storage.
CONDITIONS TO AVOID: Combustible atmospheres. Heat, flames, ignition sources, water (absorbs readily) and incompatibles.

POLYMERIZATION: Not available.

INCOMPATIBILITY WITH OTHER MATERIALS: Do not store near other combustible materials.

DECOMPOSITION: Not available

11. TOXICOLOGICAL INFORMATION

EFFECTS OF EXPOSURE

ACUTE INHALATION: LC50 not available

EYES: Irritant SKIN: Irritant

ACUTE INGESTION: LD50 not available

Soken Trade Corporation

Page 6 of 9



MATERIAL SAFETY DATA SHEET Noxudol 300 S

Last Updated April 18, 2011

CHRONIC EFFECTS/CARCINOGENICITY: Calcium carbonate, the product itself, is not listed by NTP, IARC, or OSHA as a carcinogen. There is no reported health effects associated with prolonged exposure to pure calcium carbonate. This product contains variable quantities of crystalline silica (quartz), which is considered a hazard by inhalation. IARC has classified crystalline silica as probably carcinogenic for humans (2A). This classification is based on the findings of laboratory animal studies that were considered to provide sufficient evidence and data from human epidemiological studies that were considered to provide limited evidence for carcinogenicity.

Crystalline silica is also a known cause of silicosis, a noncancerous lung disease. NTP and OSHA have not classified crystalline silica as a carcinogen.

Carbon black has been classified by IRAC as a Category 2B (known animal carcinogen, possible human carcinogen) material. This was based on the results of rat inhalation studies of carbon black, despite the lack of parallel evidence on humans or other animal species

MUTAGENIC OR REPRODUCTIVE/DEVELOPMENTAL EFFECTS: None expected

12. ECOLOGICAL INFORMATION

ECOTOXICITY: This product is not toxic or harmful to the environment.

PERSISTENCE AND DEGRADABILITY: This product is not readily degradable.

MOBILITY: Highly viscous liquid is not water soluble and is not expected to be mobile.

BIOACCUMULATION: This product is not expected to bioaccumulate.

13. DISPOSAL DATA

WASTE DISPOSAL METHOD: It is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Disposal should be in accordance with applicable federal, state, and local regulations. Local regulations may be more stringent than regional or national requirements.

RCRA INFORMATION: If this material as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

CONTAMINATED MATERIALS: Wash contaminated clothing before reuse.

14. TRANSPORTATION DATA

Domestic (Land, D.O.T.), International (Water, I.M.O.), International (Air, I.C.A.O.)

CLASS: None

PRODUCT LABEL: Noxudol 300 S

UN NUMBER: None PACKING GROUP: None

D.O.T. SHIPPING NAME: Consumer Commodity, ORM-D

PRODUCT RQ (LBS): None
ERG Guide Number: None
SUPPLEMENTAL HAZARD: None
VESSEL STOWAGE LOCATION: None
SHIPPING RESTRICTIONS: None

Soken Trade Corporation

Page 7 of 9

www.noxudolusa.com



MATERIAL SAFETY DATA SHEET Noxudol 300 S

Last Updated April 18, 2011

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATORY STATUS

- TSCA (TOXIC SUBSTANCE CONTROL ACT): All of the components of this product are listed on the TSCA inventory.
- CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT): This product is NOT subject to CERCLA environmental reporting requirements; however, many states have more stringent release reporting requirements. Report spills as required under federal, state and local regulations.
- SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): This product does not contain any chemicals subject to SARA Title III. 311/312 HAZARD CATEGORIES: Slight Health Hazard, Slight Flammability Hazard
- CAA (CLEAN AIR ACT): This product conforms to the VOC limits listed under Subpart B: National Volatile Organic Compound Emission Standards for Automobile Refinish Coatings under Section 183(e)(3)(C).
- OTC (OZONE TRANSPORT COMMISSION): This product conforms to the VOC limits listed in Model Rule 2009 – Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations.

STATE REGULATIONS:

- California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product is known to contain chemicals currently listed as carcinogens or reproductive toxins as regulated under California Proposition 65.
- California Air Resource Board (CARB) Suggested Control Measure for Automotive Coatings: This product conforms to the VOC limit for the automotive undercoating.

LOCAL REGULATIONS

- SCAQMD (SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT) RULE 1151: This product conforms to the VOC limits listed under Rule 1151—Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations, Appendix A.
- BAAQMD (BAY AREA AIR QUALITY MANAGEMENT DISTRICT) RULE 8-45: This product conforms to the VOC limits listed under Rule 8-45—Motor Vehicle and Mobile Equipment Coating Operations.

INTERNATIONAL REGULATIONS:

Europe: All ingredients conform to the EU requirements. Regulation (EC) nr. 1907/2006 EEC-directive 2006/121/2006 No label required

16. OTHER INFORMATION

Label Requirements: WARNING! COMBUSTIBLE!

Hazardous Material Information System (HMIS):	Health	1
	Flammability	1
	Reactivity	0
	Personal Protection	

Soken Trade Corporation

Page 8 of 9

www.noxudolusa.com

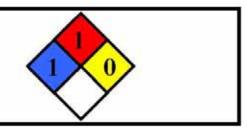


MATERIAL SAFETY DATA SHEET Noxudol 300 S

Part Number: --

Last Updated April 18, 2011

National Fire Protection Association (NFPA):



NFPA Ratings: Health: 1, Flammability: 1, Reactivity: 0

NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

Protective Equipment: Goggles & shield, lab coat & apron; vent hood; proper gloves; Class B extinguisher.

Prepared By: Donato Polignone (MSDS Authoring Services)

Approved By: Soken Trade Corporation

Approval Date: April 18, 2011 Supersedes Date: March 1, 2011

ADDITIONAL INFORMATION:

The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process. This Material Safety Data Sheet (MSDS) has been reviewed to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-2004)

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Soken Trade Corporation. The data on this sheet are related only to the specific material designated herein. Soken Trade Corporation assumes no legal responsibility for use or reliance upon these data.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

END OF MSDS

MATERIAL SAFETY DATA SHEET

PARKER INDUSTRIES

16-8, NIHONBASHI 2-CHOME, CHUO-KU, TOKYO 103-0027, JAPAN TELEPHONE: (03) 5205-1973 FAX: (03) 5205-1981

> EMERGENCY CONTACT: CHEMTREC (800) 424-9300

HMIS HAZARD RATING

HEALTH	1
FIRE	1
REACTIVITY	0
PERSONAL PROTECTION	В

Date of Review: Revised: March 17, 2011
Date of Preparation: November 14, 2007 By: Y.Yamada

SECTION 1: PRODUCT IDENTIFICATION

Product Name: 712AM

Chemical Family: Petroleum oil/additive blend
Material Usage: Corrosion Preventive Compound

EMERGENCY OVERVIEW: Petroleum oil-based product. When product burns it releases typical hydrocarbon products of combustion. Refer to Section 3 for health effects and to Section 5 for fire hazard data.

SECTION 2: HAZARDOUS INGREDIENTS

Component	Wt%	Recommended Exposure Limits (TWA)
Microcrystalline wax	5-10	ACGIH TLV: 2 mg/m ³
CAS #64742-42-3		OSHA PEL: 2 mg/m ³
Petroleum distillates, solvent dewaxed	5-15	ACGIH TLV: 5 mg/m ³
heavy paraffinic		
CAS #64742-65-0		OSHA PEL: 5 mg/m ³
Sulfonic acids, petroleum,	5-15	ACGIH TLV: 5 mg/m ³ (oil mist)
Calcium salts, overbased	OS	HA PEL: 5 mg/m ³ (oil mist)
CAS #68783-96-0		tien aver annual et an Senatu. Senatu ar an an a
White mineral oil, petroleum	50-60	ACGIH TLV: 5 mg/m³ (oil mist)
CAS #8042-47-5	572 (534)	OSHA PEL: 5 mg/m³ (oil mist)
Bentonite, quaternary ammonium	0.3-1.0	Not established
compound modified		
CAS# 68953-58-2		

712AM 3/17/2011 Page 1 of 4

712AM MSDS

Soybean oil polymer with isophthalic acid and pentaerythritol CAS# 66071-86-1	0.4-4	Not established
Castor oil, dehydrated, polymerized CAS# 68038-02-8	5-15	Not established
Calcium Carbonate CAS #471-34-1	5-10	OSHA PEL: 5 mg/m³ (respirable fraction) OSHA PEL: 15 mg/m³ (total dust) ACGIH TLV: 10 mg/m³ (¹²) nuisance dust)

^[2] This component poses a hazard only if a dust is formed, i.e., by sawing, sanding, drilling, etc.

SECTION 3: HEALTH HAZARD INFORMATION

Primary Routes of Entry: Skin absorption, eyes (splashing).

Acute Effects: May cause eye irritation and reversible skin irritation. Prolonged skin exposure may cause dermatitis or oil acne. Breathing mists may cause dizziness or pulmonary irritation.

Chronic Overexposure:

Carcinogenicity: None of the components of this product are listed as carcinogens by NTP, IARC, or OSHA 1910(Z).

Pre-Existing Medical Conditions Aggravated by Exposure: Exposure may aggravate pre-existing respiratory or skin problems.

SECTION 4: FIRST AID PROCEDURES

Inhalation (mist): Move victim to fresh air and call emergency medical care. If not breathing, give artificial respiration; if breathing is difficult, give oxygen.

Eyes: In case of contact with material, immediately flush eyes with running water for at least 15 minutes. Seek immediate medical attention.

Skin: Wash skin with soap and water. Remove and isolate contaminated clothing and shoes at the site.

Ingestion: DO NOT INDUCE VOMITING. Consult a physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

SECTION 5: FIRE AND EXPLOSION HAZARD DATA

Flash Point: >200°C (TCC)

Explosive Limits: LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: Small Fires: Dry chemical, CO₂, water spray, or regular foam. Large Fires: Water spray, fog, or regular foam. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks. For massive fire in cargo area, use unmanned hose holder or monitor nozzles. If this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.

Special Firefighting Protection/Emergency Action: Fire may produce irritating or poisonous gases. Positive pressure self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection. Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas. Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire. If runoff from fire control occurs, notify the appropriate authorities.

Unusual Fire/Explosion Hazards: Combustible material; may be ignited by flames. Container may explode in heat of fire.

Products of Combustion: Carbon monoxide, carbon dioxide, oxides of sulfur, miscellaneous hydrocarbons.

712AM 3/17/2011 Page 2 of 4

712AM MSDS

SECTION 6: SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Steps to be taken in case Material is Released or Spilled: Shut off ignition sources; no flares, smoking or flames in hazard area. Stop leak if you can do it without risk.

Small Spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large Spills: Dike far ahead of liquid spill for later disposal.

SECTION 7: SAFE HANDLING INFORMATION

Precautions To Be Taken In Handling/Storage: Store in cool, well-ventilated area. Keep away from flames. Never use a torch to cut or weld on or near container.

Other Precautions: Never wear contaminated clothing. Launder or dry clean before wearing. Discard oil-soaked shoes. Wash thoroughly with soap and water (waterless hand cleaner may be helpful in removing residues) after use and before smoking or eating. Avoid excessive skin contact.

SECTION 8: EXPOSURE CONTROLS

Respiratory Protection: NIOSH-approved respirator for organic vapor and mist to control exposure where ventilation is inadequate.

Ventilation: General and local exhaust.

Personal Protective Equipment: Protective Gloves: Impervious gloves (Viton, PVOH, etc.) Eye Protection: Safety glasses with sideshields or chemical goggles. Other Protective Clothing or Equipment: If splashing is anticipated, wear rubber apron and boots or other protective equipment to minimize contact.

SECTION 9: REACTIVITY HAZARD DATA

Stability: Stable

Incompatibility: Strong acids, oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, oxides of sulfur, miscellaneous

hydrocarbons.

Hazardous Polymerization: Will not occur.

SECTION 10: PHYSICAL AND CHEMICAL PROPERTIES

Color: Tan

Appearance: Viscous Liquid

Odor: Oil
Boiling Point (initial): NA
Evaporation Rate (n-Butyl Acetate=1): <<1
Vapor Pressure (mmHg @ 20°C): 3.4
Vapor Density (air=1): NA

Solubility in Water: Not Determined

Specific Gravity: .9-1.0

pH: Not Applicable

Percent Volatile by Volume: 0

SECTION 11: DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Dispose of in accordance with state, local and federal regulations. Materials may become a hazardous waste through use. If permitted, incineration may be practiced. Consider recycling solvent.

712AM 3/17/2011 Page 3 of 4

712AM MSDS

SECTION 12: REGULATORY INFORMATION

Volatile Organic Content: (EPA Method 24)

VOC per gallon: 0.165 lbs/gal

EPA Hazardous Waste Number(s) (40CFR Part 261):

D001

EPA Hazard Category (40CFR Part 370):

DELAYED (CHRONIC)

SARA TITLE III

This product contains the following TOXIC CHEMICALS subject to the Reporting Requirements of Sec. 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and of 40CFR Part 372:

CHEMICAL

CAS NO. WT %

NONE

This product contains the following EXTREMELY HAZARDOUS SUBSTANCE(S) subject to the *Emergency Planning Requirements under Sec. 301-303 (40CFR Parts 300 and 355) and Emergency Release Notification Requirements under Sec. 304:*

CHEMICAL

CAS NO.

WT%

RO/TPO Lbs

NONE

(CERCLA LIST) This product contains the following HAZARDOUS SUBSTANCE(S) subject to *Emergency Release Notification Requirements under Sec. 304 (40 CFR Part 302)*:

CHEMICAL

CAS NO.

WT%

Final RQ Lbs

NONE

CALIFORNIA PROPOSITION 65

This product may contain trace quantities of the following chemicals that are identified by the State of California under the Safe Drinking Water and Toxic Reinforcement Act of 1986 ("Proposition 65") as either a carcinogenic or reproductive hazard:

CHEMICAL

CAS NO.

Estimated Concentration %

NONE

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.

712AM 3/17/2011 Page 4 of 4

ASM Reference Guide for the Corrosion-Resistant Compound Campaign (B0D) Certain 2000-2003 Model Year Tundra Vehicles

USE OF THIS ASM REFERENCE GUIDE

The purpose of this ASM Reference Guide is to help you guide the customers through the Corrosion-Resistant Compound (CRC) Campaign (or B0D), address concerns, increase satisfaction, and eliminate confusion. During this campaign you may need to refer to and use materials bround in Safety Recall 90M and Limited Service Campaign (LSC) ADF. This CRC Campaign is a combination of a Safety Recall that offers to apply a CRC to the rear portion of the vehicle's frame and a limited time offer that offers to apply a CRC and the Tear portion of the vehicle's frame and a limited time offer that offers to apply a CRC to the rear portion of the vehicle's frame and a limited time offer that offers to apply CRCs to the front portion of the frame (see the Dealer Letter and the Technical Instructions for additional information).

This ASM Reference Guide contains a flow chart to help assist you when walking the customers through the different steps and possibilities that may occur while performing this campaign. Word tracks have been placed in red italics. If, during the CRC Campaign, your dealership determines that frame replacement is required, please refer to the ASM Reference Guide for LSC A0F.

BEST PRACTICES FOR CUSTOMER HANDLING

customer satisfaction. Customers who receive the owner letter may contact your dealership with questions regarding the letter and/or campaign remedy. Please ensure that all customer-contact personnel are aware of this campaign and know how to accurately answer customer's questions or how to direct the customer to someone who can. Please welcome customers to your dealership and answer You should consider this campaign a great opportunity to focus on assuring customers that Toyota is committed to quality and any questions that they may have

Please remember that some of these customers may be the second, third or later owner. In these situations, these customers may have never visited a Toyota dealership. Please be patient with these customers as they may not be familiar with your operations. Each step in the process should be carefully explained to them.

Vehicle Drop Off

Take a few minutes and explain to the customer each step of this campaign. Use both the flow chart (to the left) and the opposite side of this resource card to successfully guide customers through the program, address concerns, increase satisfaction, and eliminate confusion. You may consider using the following word track:

"Thank you for bringing your vehicle in today to have the Corrosion-Resistant Compound Campaign completed on your vehicle. I would like to take a few minutes and review the different steps that will be taken to ensure that your vehicle's frame will provide years of reliable service for you."

Vehicle Pick Up

Two key elements of customer satisfaction and retention are to ensure you have adequate time during the reception and write-up process to accurately address all of the customer's questions and concerns. Next, and most important, is a quality service delivery.

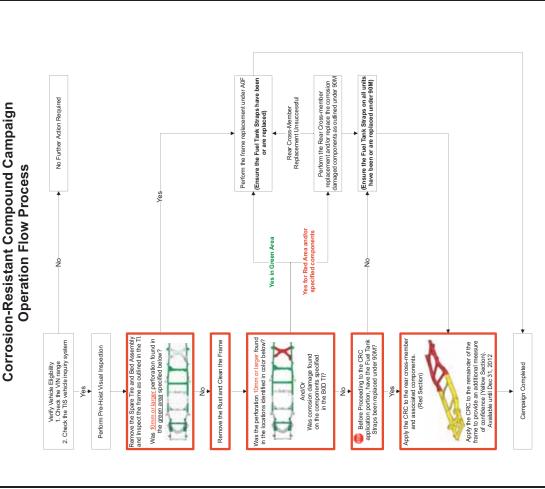
Make sure your delivery process includes:

- Assemble the paperwork and store it in a location that is easy to access.
- Organize the customer's keys and stored them in a secure location. Ensure adequate staffing that allows you to have extra time when reviewing the details of this campaign. Exerview the work completed by using the R.O., this ASM Guide, and the ASM Guide for AOF (where applicable).

"Helio MrMrs [insert last name]. First of all, I would like to thank you for your patience while we were repairing your vehicle. We have completed the prescribed procedures and have performed a quality check on your vehicle. I would like to take a few minutes to do a final review of the work we have done.

- Ensure the hang tag for post CRC application care is on the vehicle's rear-view mirror. Review the "Post CRC Application Vehicle Care" section on the opposite side of this ASM Guide.
 - Ask the customer if they have any questions or concerns.
 - Offer to set up the next scheduled maintenance appointment. Have the customer's vehicle staged for delivery. Provide the keys to the customer and *thank* them for their business.

"After you leave today, if you have any additional questions or concerns that were not address during our discussions, please feel free to give us a call at linsert phone number]. We will be happy to assist you in any way possible. Thank you for your business and have a nice day."



ASM Reference Guide for the Corrosion-Resistant Compound Campaign (B0D) Certain 2000-2003 Model Year Tundra Vehicles

FRAME INSPECTION PROCEDURE FOR THE SAFETY RECALL PORTION OF THIS CAMPAIGN

Review the Inspection Process with the Customer.

perforations present. Let me show you the areas that will be inspecting as part of the Safety Recall portion of this campaign. Also, here is a sample of the perforations we are 'Our certified technicians will inspect* your vehicle's frame to determine if there are any looking for."

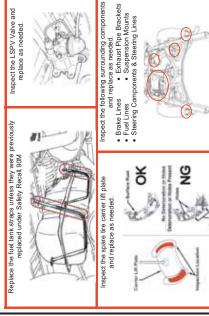
Areas that will be inspected:

NOTE: The picture below is not to scale and should be used for reference purposes only. Please refer to the Technical Instruction for additional information.



- The above rear section will be inspected* as part of a Safety Recall and currently does not have an expiration date.
- The forward portions (not pictured) of the frame will be inspected* as part of a limited time offer. This limited time offer will be available until 12/31/2012.

Additional Areas that will be Inspected/Replaced as Part of a Safety Recall:



What if rust perforation, exceeding the minimum size, is found* in the Red Area Only?

We have completed our frame inspection and found rust perforation on your vehicle's rear cross-member. Let me take a few minutes to explain our findings and review the component(s) we will need to replace before applying the Corrosion-Resistant Compound (CRC) application to your vehicle's frame.

(FRAME INSPECTION PROCEDURE FOR THE SAFETY RECALL PORTION OF THIS CAMPAIGN – CONTINUED . . .)

What if rust perforation, exceeding the minimum size, is found* in the area covered by the Safety Recall (other than the red area)?

the vehicle's frame (Please refer to the LSC ADF ASM Guide for additional information). After the frame replacement is complete, there will be no need to perform "We have completed our frame inspection and found rust perforation on your vehicle's frame. We recommend that your frame be replaced. Let me take a few minutes to ta will cover when replacing explain our findings and review the CRC application."

What if rust perforation, exceeding the minimum size, is found[‡] in the portion of the frame that is covered for a limited time (<u>Prior to 12/31/2012)</u>?

there will be no need to perform the CRC application. Please remember that this offer is only available until 12/31/2012. "We have completed our frame inspection and found rust perforation on your vehicle's er when replacing frame. We recommend that your frame be replaced. Let me take a few minutes to vehicle's frame (Please refer to the LSC A0F ASM Guide for additional explain our findings and review a list o information). After the fra

What if no rust perforation, exceeding the minimum size, is found* after the frame is inspected?

"We have completed our frame inspection. Based on the inspection criteria, we did not find any rust perforation that warrants frame or rear cross member replacement. Let me take a few minutes to explain the CRC application process. Please remember that this offer is only available until December 31, 2012.

Note: Based upon the inspection results there may be a few components that need to be replace in addition to the CRC application (e.g. fuel tank straps, LSPV valve, etc)

CORROSION-RESISTANT COMPOUND APPLICATION PROCEDURE

Corrosion-Resistant Compounds (CRC) that will be used during the application Internal Surface Compound **External Surface Compound** Noxudol 300S



Areas that the CRCs will be applied to:



(CORROSION-RESISTANT COMPOUND APPLICATION PROCEDURE – CONTINUED.

Internal Application Nozzle 8 mm External Application Nozzle

ALTERNATIVE TRANSPORTATION:

To ensure that your customers experience minimal inconvenience during repairs and CRC application, Toyota will provide alternative transportation.

Remind the customer that you will need to hold their vehicle for approximately 24 hours after the CRC application is complete.

Details for rental vehicle are outlined in the dealer letter

Setting customer expectations with regard to alternative transportation needs:

Resistant Compound application on your vehicle's frame we will need to hold the vehicle for approximately 24 hours to provide some time for the compound to cure before the vehicle is placed back into service. To help minimize your inconvenience, Toyota has "Please be aware that after our trained technicians have completed the Corrosionoffered to provide alternative transportation to you at no cost."

Resistant Compound to cure." (see "Post CRC Application "After the 24 hour period, we ask that you please take a few precautions to provide - Vehicle Care" for additional information)

vehicle or if your alternative transportation requirements are unique, we will contact our. Toyota Regional representative for special handling. If we are experiencing a long delay in completing the repairs and/or application to your

POST CRC APPLICATION - VEHICLE CARE

External Surface CRC

- The temperature of the frame will affect the drying unite.
 Please ask the customer to avoid fouching the external surfaces of the frame as the surface may remain tacky to the bouch for a period of time.
 Advise the customer not to wash listfiner value in the transfer or Advise the customer not to wash listfiner value in provide ample time for the CRC.
- The customer may also note a petroleum product based odor for a few days. The customer may wish to park the vehicle outside during this time

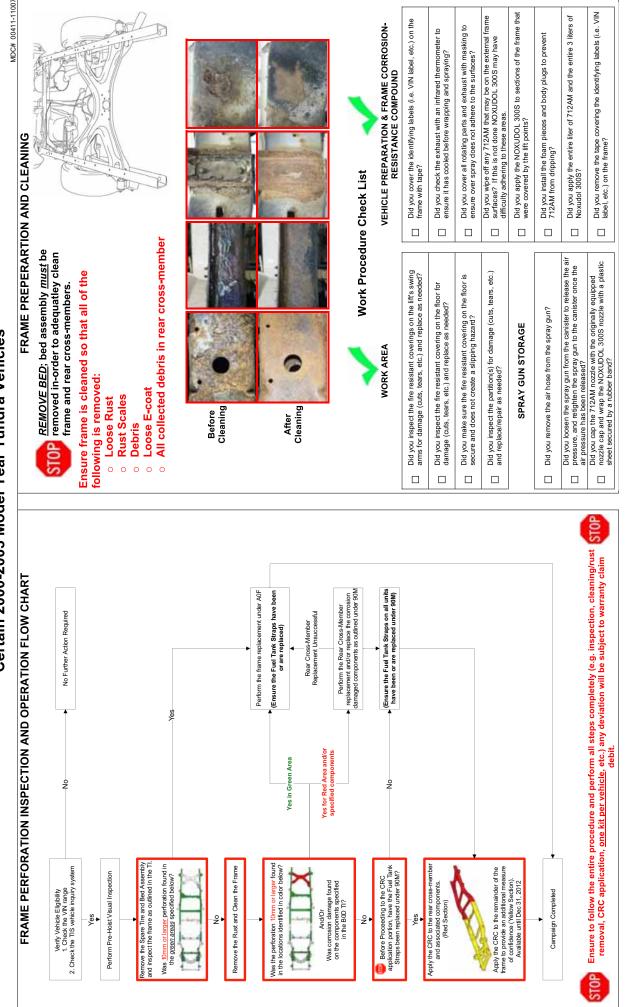
Internal Surface CRC

- The internal surface CRC consists of mainly paraffin wax. Some customers may notice as mail amount of whitiskiz—colored droplets under their vehicle from the internal application. Advise the customer that small foam blocks have been installed in strategic locations to help avoid dripping.
- If dripping occurs on concrete, the customer will need to perform the following steps:
- Wipe up the spot as soon as possible with a paper towel

- Apply Simple Green® to any remaining compound.
 Agriate the spot with a stiff scrub brush.
 By the bighe of the Simple Green®
 If the spot is still visible after 24 hours, repeat steps 1-4 (Some spots may
- Wash hands immediately if hands come into direct contact with either CRC's require multiple treatments to no longer be visible).

*Based upon Toyota's Inspection Procedure and Criteria

Quick Reference Guide for the Corrosion-Resistant Compound Campaign (B0D) Certain 2000-2003 Model Year Tundra Vehicles



INSERTION LOCATIONS, DEPTH, AND APPLICATION SPEED 712AM INTERNAL CRC APPLICATION

Wax Temperature Application Speed

0.2 m/sec (8 in/sec) 0.3 m/sec (12 in/sec)

22°C (72°F) 30°C (86°F)

712AM Spray Gun Setup

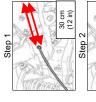
- Turn Flow/Volume Adjustment Screw
 - Loosen Flow Volume Adjustment fully closed (clockwise)
 - Attach internal spray wand Screw 4 Turns



Air Regulator is extremely

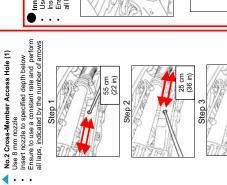
- sensitive; always follow instructions to avoid damage to
- Adjust Regulator completely closed (no air flow) Attach air hose to gun
- Fully depress spray trigger and slowly adjust air pressure (1/8 turn or Note: Air regulator has delay and may take up to 10 seconds to stabilize less) to 72.5 psi

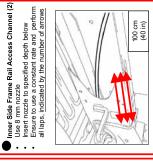
- Outer Side Frame Rail Access Holes (2)
 Use 8 mm nozzle
 Insert nozzle to specified depth below
 Ensure to use a constant rate and perform
 all laps, indicated by the number of arrows





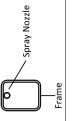




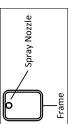


Once outside surface of the frame rail section you are working on has been completed, without stopping, spray bottom

side as shown.



5 cm (2 in)



sealed, inspect and spray any areas that may have been

Adequate Protection All CRC MUST Be Applied to the Frame for







NOXUDOL 300S EXTERNAL FRAME APPLICATION

NOXUDOL 300S Gun Set Up

- Turn Flow/Volume Adjustment Screw fully closed (clockwise) Loosen Flow Volume Adjustment Screw 3.5 Turns
 - Attach external spray wand
- Air Regulator is extremely sensitive; always follow instructions to avoid damage to gun! Adjust Regulator completely closed (no air flow)

1. Start in top left corner of the section you are sparying, position spray nozzle 10 to 20 cm (4 to 8 in.) away from frame surface.

2. Apply NOXUDCJ. 3005 to outside frame rail at a constant speed of 0.15 m/sec (6 in/sec).

- Attach air hose to gun Fully depress spray trigger and slowly adjust air pressure (1/8 turn or less) to <u>50 psi</u>

Note: Air regulator has a delay and may take up to 10 seconds to stabilize

Top of Cross-Member External CRC

3. Without stopping, move down and reverse direction as shown in illustration until the section is completed. Slightly overlap each pass by 2.0 in. so no gaps appear.

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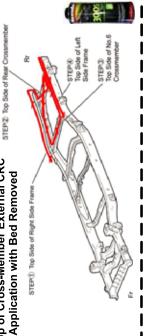
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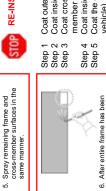
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Remaining Frame External CRC Application

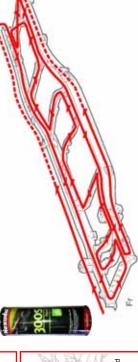


RE-INSTALL BED PRIOR TO SPRAYING REMAINING PORTIONS OF THE STOP FRAME TO HELP REDUCE ANY OVERSPRAY



- Coat outer and bottom surfaces of passenger side frame rail (start from front of the vehicle) Coat inside surface of passenger side frame rail (start from rear of vehicle) Coat cross-members (No. 0, No.1, No. 2, No. 3, No. 4, No. 5, No. 6) and rear cross
 - member from front to back (Start from front of vehicle)
- Coat the outer and bottom surfaces of driver's side frame rail (start from front of Coat inside surface of drivers side frame rail (start from rear of vehicle)





= 1 Vehicle





CRC Kit P/N: 00289-T00KT-DS

After vehicle has been removed from lift, clean and spray lift contact points.



Corrosion-Resistant Compound

Dear Toyota Customer:

We appreciate your time and patience while we applied the Corrosion-Resistant Compound to your vehicle's frame. We apologize for any inconvenience you may have experienced.

The Corrosion-Resistant Compound has been applied to both the internal and external surfaces of your vehicle's frame. Please note the following:

External Surface Corrosion-Resistant Compound
The temperature of the frame will affect the drying time. Please do not touch the external surfaces of the frame as the surfaces may remain tacky to the touch for a period of time. Please do not wash your vehicles under carriage for approximately 72 hours after pickup.

You may also note a petroleum product based odor, therefore you may wish to park your vehicle outside for two or three days.

Internal Surface Corrosion-Resistant Compound
The internal surface compound consists of mainly
paraffin wax. You may notice a small amount of
whitish-colored droplets from the internal application.
If dripping occurs on concrete:

- Wipe up the spot as soon as possible with a paper towel.
- 2. Apply Simple Green® to any remaining compound.
- 3. Agitate the spot with a stiff scrub brush.
- 4. Wipe up the Simple Green®.
- 5. If the spot is still visible after 24 hours, repeat steps 1-4

Some spots may require multiple treatments to no longer be visible.

Wash your hands immediately if you come into direct contact with either Corrosion-Resistant Compounds.

Thank you for driving a Toyota.

TOYOTA MOTOR SALES, U.S.A., INC.

00411-11004

