

1998-2000 RODEO/AMIGO HIGH/ERRATIC IDLE CONDITION

SERVICE CAMPAIGN BULLETIN

Reference Number(s): TSB SB00-01-S007, Date of Issue: AUGUST, 2000

Isuzu: 1998 - 2000 Rodeo

AFFECTED VEHICLES: 1998 - 2000 Rodeo (UE)/Amigo (UA) models with 3.2L V6 engines

ARTICLE BEGINNING

SERVICE INFORMATION

CONDITION

Some owners may comment on high/erratic idle and/or the MIL light on. In some cases, vacuum leak noise may be heard as well.

POSSIBLE CAUSE

- There may be poor contact or loss of contact at various main ground points or electrical connections.
- Power steering pressure switch may be shorted with debris.
- Inlet manifold gasket may be leaking.
- Broadcast code and calibration part number may need to be updated.

CORRECTION

To correct this condition, follow the procedures outlined in this bulletin to determine proper diagnosing, inspection and correction of ground contact points for proper electrical contact, power steering pressure switch cleaning or replacement and power steering system flush, replacement of inlet manifold gasket, and/or PCM reprogramming.

SERVICE PROCEDURE

1998 - 2000 MODELS

NOTE: Please refer to the appropriate workshop manual for the correct diagnosing procedure and/or follow the service procedures outlined in this bulletin for the vehicle being serviced.

1. Inspect main ground points (refer to [SB99-04-S001](#) for more information).
 - P6 ground point-body [on the passenger side of engine compartment, between the battery and cruise control actuator (if equipped)]. (Figure [Fig. 1](#))
 - P10 ground point-engine (at the alternator bracket). (Figure [Fig. 2](#))

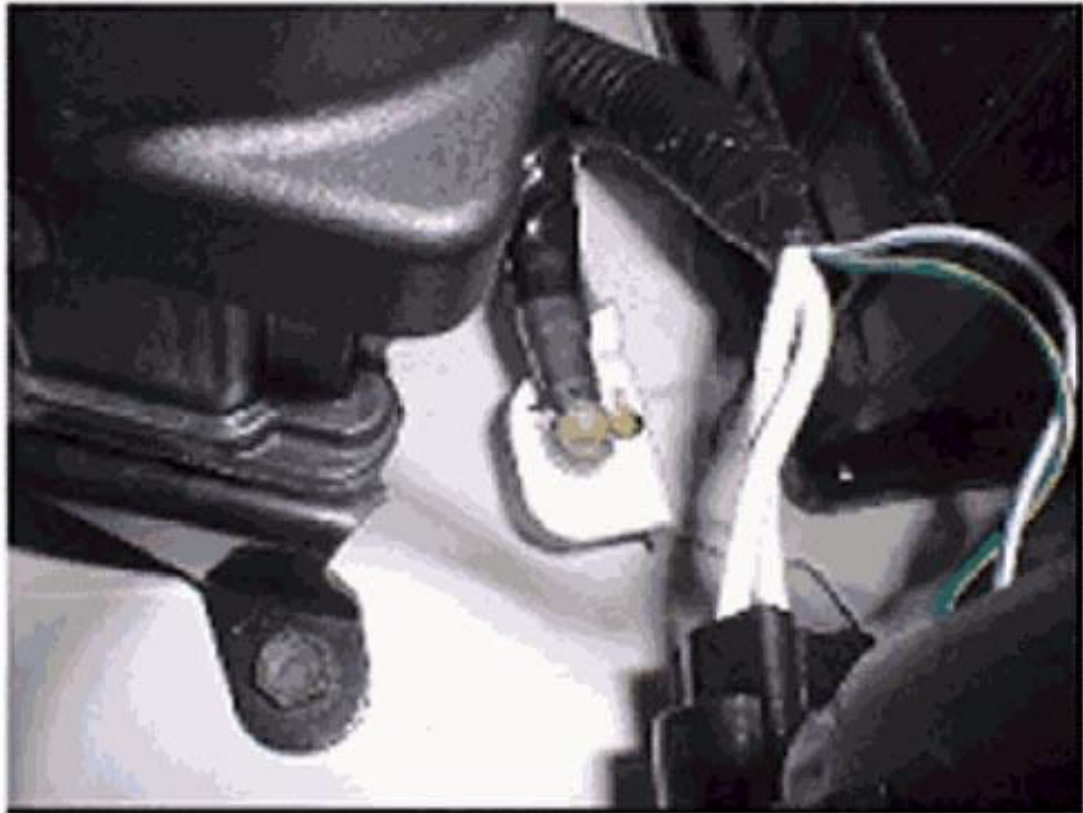
NOTE: The 1998, 1999 or 2000 Rodeo/Amigo Electrical Troubleshooting Manual can assist in locating the vehicle ground distribution (i.e., ground contact points).

- Perform a voltage drop test at the main ground points.
- If the voltage drop test fails, then inspect and clean both the bolt and

contact point.

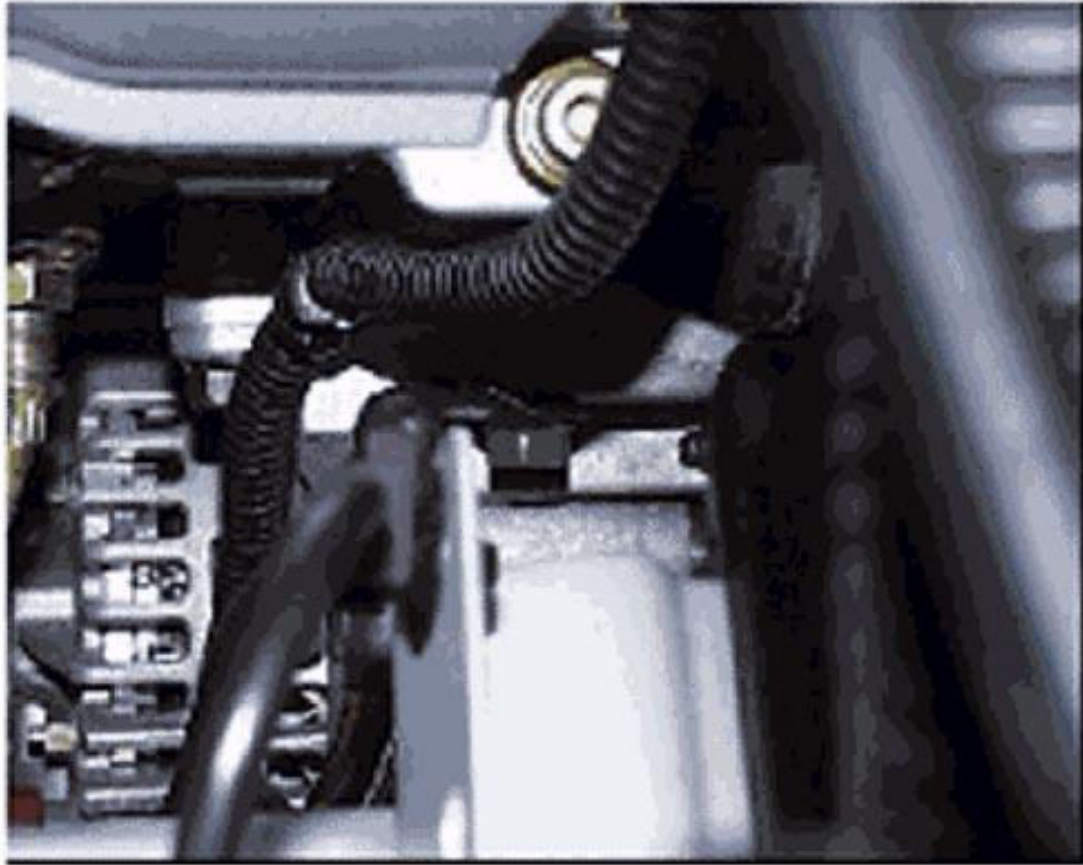
- **Verify and correct idle settings (if needed) as described in the workshop manual.**
- **If the repair procedure on this step solves the high idle condition, then return the vehicle to the customer. If the repair procedure on this step does not solve the high idle condition, then go to step 2 (16 pin Blue Connector).**

A. Locate P-6/P10 ground in the engine compartment.



G03454657

[Fig. 1: Identifying P-6 Ground](#)



G03454658

Fig. 2: Identifying P-10 Ground

- B. Remove P-6/P-10 ground terminal and bolt for ground contact inspection.
 - Inspect ground contact area for corrosion.
 - Inspect bolt and thread for damage or corrosion.
 - Clean the ground area and fastening bolt thoroughly with a wire brush.
 - Replace bolt if damaged or heavily corroded.
- C. Install the P-6/P-10 ground terminal and bolt (tighten using hand tools only).
 - Torque the P-6/P-10 ground terminal bolt to (14 N.m) 10 lb.ft.

IMPORTANT: Do not use air/power tools when tightening. Over-tightening may occur. Use only hand tools and torque the bolt by hand. Do not over-tighten or under-tighten the bolt.

1998 - 1999 MODELS ONLY

2. Inspect the 16 pin blue connector, located under the power steering fluid reservoir for corrosion, bent, or damaged pins (specifically for the Throttle Position Sensor). (Figure [Fig. 3](#))

- A. Disconnect the H-6 connector (16 pin blue connector) and clean with LOCTITE(R)/Permatex - Electrical Contact Cleaner or equivalent (p/n 24379 available at your local store).

IMPORTANT: Do not use "Brake Cleaner or Carb Cleaner."

NOTE: If the repair procedure on this step solves the high idle condition, then return the vehicle to the customer. If the repair procedure on this step does not solve the high idle condition, then go to step 3 (POWERSTEERING PRESSURE SWITCH).



G03454659

Fig. 3: Disconnecting The H-6 Connector

3. Inspect the power steering pressure switch as described in the appropriate workshop manual and/or follow the preceding steps.

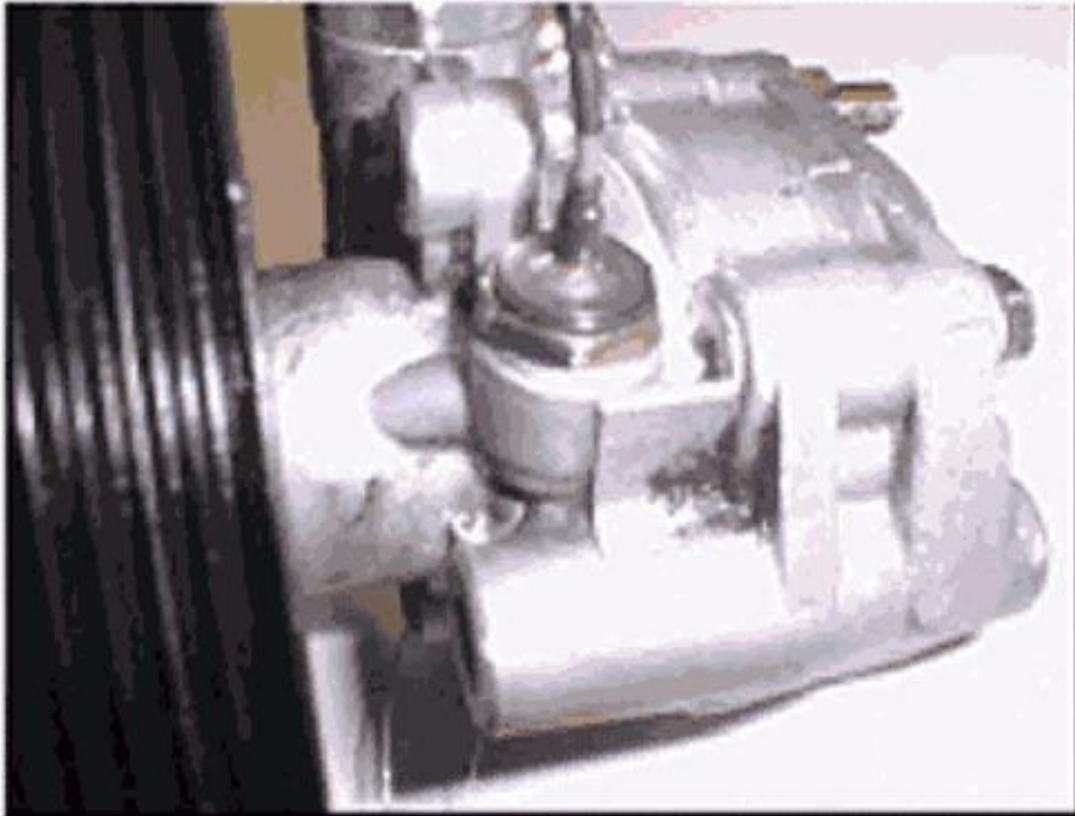
NOTE: The power steering pressure switch fault can be diagnosed with high idle condition when in neutral with the idle speed at approximately 1200 RPM.

- A. Disconnect the power steering pressure switch at the power steering pump and if the idle drops,

then the switch was grounded. Or use Tech 2 to run a status check on the power steering pressure switch. If the switch was not grounded, then go to step 4. If the switch was grounded, then proceed:

- **FOR 1998 models**, replace the power steering pressure switch.
- **FOR 1999 models**, remove the power steering pressure switch and clean with brake cleaner and screw driver (or equivalent tool) to scrape off all the debris causing the switch to short. (Figures [Fig. 4](#) & [Fig. 5](#))
- Flush the power steering system to remove any foreign material, after the power steering pressure switch has been reinstalled.

NOTE: If the repair procedure on this step solves the high idle condition, then return the vehicle to the customer. If the repair procedure described on this step does not solve the high idle condition, then go to step 4 (INLET MANIFOLD GASKET).



G03454660

[Fig. 4: Identifying Power Steering Pump](#)



G03454661

Fig. 5: Identifying Power Steering Pressure Switch

4. Refer to **TSB SB00-01-S005** and/or *inspect the inlet manifold gasket* for any leaks and replace the inlet manifold gasket as needed on *all 1998 - 1999 Rodeo, V6 models prior to engine breakpoint: 845194*. . Please perform VIN verification prior to performing any repairs to eliminate potential invalid VIN, cancellation of vehicle warranty coverage, verification of any open campaign circumstances and duplication of previous repair.

NOTE: A leaking and/or cracked inlet manifold gasket may turn the MIL light ON, and/or a vacuum leak noise may be heard, which may lead to high/intermittent rough idle.

A. Remove the Common Chamber Assembly as described in the Workshop Manual.

IMPORTANT: Remove the Common Chamber as one piece (separation of upper and lower chamber is not required).

B. Disconnect the EGR valve pipe and EGR valve harness. (Figure [Fig. 6](#) & [Fig. 7](#))



G03454662

[Fig. 6: Identifying EGR Harness](#)



G03454663

Fig. 7: Identifying EGR Valve Pipe

NOTE: By disconnecting the EGR valve pipe from the EGR valve, removal of the EGR valve can be eliminated.

- C. Carefully remove both old inlet manifold gaskets and clean the surfaces thoroughly with a plastic gasket scraper or any equivalent tool (making sure that all the old gasket material has been removed).

IMPORTANT: Do not use surface conditioning discs when cleaning engine gasket sealing surfaces and/or cleaning engine parts. Please refer to [IB00-14-S001](#) for more information.

- D. Install the new inlet manifold gaskets and the common chamber assembly.

NOTE: If the repair procedure on this step solves the high idle condition, then return the vehicle to the customer. If the repair procedures on this step does not solve the high idle condition, then PCM reprogramming may be required. Proceed to PCM Reprogramming in this bulletin.

PCM REPROGRAMMING (1999 RODEO WITH A/T, LEV CALIFORNIA MODELS ONLY)

1. Refer to TSB [SB00-03-S001](#) and/or follow the Driveability/Emissions Manual troubleshooting procedure in the appropriate workshop manual and use the TECH 2 scan tool to read the current PCM Calibration number and Broadcast code. Refer to the ITCS for the updated calibration.
2. Refer to Chart A for the correct Calibration number. Then refer to the ITCS for the Service Programming Procedure. All SPS procedures are outlined in the ITCS.

CHART A

CHART A

YEAR	APPLICATION	MODEL	TRANS	BROADCAST CODE	CALIBRATION NUMBER
99	CALIFORNIA	RODEO/ AMIGO 3.2L	A/T(LEV)	DDLW	09393319

PARTS INFORMATION

PARTS INFORMATION

Part Number	Description	Quantity Required
8-97086-823-0	Bolt; Cable Battery	(1)
8-97181-590-0	Switch Kit; Pressure (SOP 7/97 - EOP 7/98)	1, see asm p/n
8-97205-627-0	Switch Kit; Pressure (SOP 7/97 - EOP 7/98)	1, see asm p/n
8-97237-538-0	Inlet Manifold Gasket	2
8-94389-939-0	Throttle Body Gasket (1999 models only)	1
8-97193-729-1	Throttle Body Gasket (2000 models only)	1
(1) * Replace only if heavily corroded or damaged.		

WARRANTY CLAIM INFORMATION

Use the following *NEW* labor operation:

WARRANTY CLAIM INFORMATION

Operation	Operation Number	Task	Time	Additional Instructions
P-6 and P-10 Ground, H-6 Connector	040916	R & R	0.3	
Power Steering Pressure Switch (3.2L V6 engines)	100364D	R & R	0.3	Includes: Power Steering System Flush
		PLUS:	0.5	
Intake Manifold Gasket	01A414	Replace	1.6	Includes: 01A401 R & R Common Chamber Assembly
PCM Reprogramming (1999 Rodeo)	030267	Reprogram	0.3	

Labor Time *includes* administrative time allowance.

MATERIAL SAFETY DATA SHEET

6/25/00

1. CHEMICAL NAME AND COMPANY NAME**CHEMICAL NAME AND COMPANY NAME**

Chemical Product Name:	Non-Flammable Electrical Contact Cleaner # 24379
Item No.:	24379
Product Type:	Aerosol cleaner
Name of Manufacturer:	LOCTITE CORPORATION
Manufacturer Address:	ROCKY HILL, CONNECTICUT 06067
Emergency Phone Number:	(860) 571-5100

2. COMPOSITION/INFORMATION ON INGREDIENTS**COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	CAS No.	Percent (%)
Dichlorofluoroethane ⁽¹⁾	1717-00-6	95 - 100
CARBON DIOXIDE	124-38-9	3 - 5
(1) * This component is listed as a SARA Section 313 Toxic Chemical.		

Ingredients which have exposure limits**INGREDIENTS WHICH HAVE EXPOSURE LIMITS**

Exposure Limits (TWA)	ACGIH	OSHA	OTHER
Ingredients	(TLV)	(PEL)	
CARBON DIOXIDE	5,000 ppm TWA	10,000 ppm TWA	None
	9,000 mg/M3	18,000 mg/M3	

INGREDIENTS WHICH HAVE EXPOSURE LIMITS

Exposure Limits (STEL)	ACGIH	OSHA
Ingredients	(TLV)	(PEL)
CARBON DIOXIDE	30,000 ppm	30,000 ppm
	54,000 mg/M3	54,000 mg/M3

3. HAZARDS IDENTIFICATION**HAZARDS IDENTIFICATION**

Toxicity:	Irritation of eyes, skin and upper respiratory system. In a confined area vapors in high concentration may cause headache, nausea, or dizziness.
Primary Routes of Entry:	Exposure may be by inhalation and/or skin or eye contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.
Signs and Symptoms of Exposure:	Headache, dizziness, nausea, from excessive exposure to vapors or spray mists. Redness and

	itching or burning sensation may indicate eye or excessive skin exposure.
Existing Conditions Aggravated by Exposure:	None generally recognized.

LITERATURE REFERENCED AND CARCINOGEN

Literature Referenced		Carcinogen		
Ingredients	Target Organ and Other Health Effects			
Dichlorofluoroethane	CAR CNS IRR REP SKI	NO	NO	NO
CARBON DIOXIDE	CNS	NO	NO	NO

ABBREVIATIONS DESCRIPTION

Abbreviations			
CAR	Cardiac	CNS	Central Nervous System
IRR	Irritant	REP	Reproductive
SKI	Skin		

4. FIRST AID MEASURES**FIRST AID MEASURES**

Ingestion:	Never give anything by mouth to an unconscious person. Do not induce vomiting. Give several glasses of water. Seek medical attention.
Inhalation:	If affected, remove from exposure. Restore breathing. Keep warm and quiet.
Skin Contact:	Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before reuse.
Eye Contact:	Flush eyes with large amounts of water for 15 minutes. Get medical attention.

5. FIRE FIGHTING MEASURES**FIRE FIGHTING MEASURES**

Flash Point:	More than 200°F	Method: Pensky Martens Closed Cup
Recommended Extinguishing Agents:	Carbon dioxide, foam, dry chemical	
Special Fire Fighting Procedures:	Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool containers to prevent pressure build up and possible auto-ignition or explosion when exposed to extreme heat.	
Hazardous Products formed by Fire or Thermal Decomp	Irritating organic vapors; oxides of carbon. Hydrochloric acid, hydrofluoric acid, carbonyl halides.	
Unusual Fire or Explosion Hazards:	Closed containers may explode when exposed to extreme heat.	

EXPLOSIVE LIMITS

Explosive Limits:	
(% by volume in air) Lower	7.6%

(% by volume in air) Upper	17.7%
----------------------------	-------

6. ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES

Steps to be taken in case of spill or leak:	Remove all sources of ignition. Maintain good ventilation. Soak up with an inert absorbent. Store in a closed container until disposal.
--	---

7. HANDLING AND STORAGE

HANDLING AND STORAGE

Safe Storage:	Store below 100°F
(Contact Loctite Customer Service 1-800-243-4874 for shelf life information)	
Handling:	Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using. Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120°F. Heat from sunlight, radiators, stoves, hot water and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes:	Wear safety spectacles with unperforated side-shields.
Skin:	Chemical resistant gloves.
Ventilation:	Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.
Respiratory:	If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2

- See section [2](#) for Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid
Odor:	Ethereal and faintly sweetish.
Boiling Point Range:	Less than 0°F to 90°F.
pH:	Does not apply
Solubility in Water:	0.17% (Base only)
Specific Gravity:	1.23 (Base only)
Volatile Organic Compound (EPA Method 24)	
Federal:	0.0%; 0.0 grams per liter of material
Some states:	100%; 1230 grams per liter
Vapor Pressure:	10.02 psi (c) 70°F (Base only)
Vapor Density:	4.1 (Base only)
Evaporation Rate	

(Ether = 1)	Faster
-------------	--------

10. STABILITY AND REACTIVITY

STABILITY AND REACTIVITY

Stability:	Stable
Hazardous Polymerization:	Will not occur
Incompatibility:	Strong acids and alkalis, reactive metals, strong oxidizing agents, some desiccants.
Conditions to Avoid:	Not available
Hazardous Decomposition	
Products (non-thermal):	None

11. TOXICOLOGICAL INFORMATION

- See Section [3](#)

12. ECOLOGICAL INFORMATION

- No data available

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS

Recommended methods of disposal:	Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.
EPA Hazardous Waste Number # F002	Hazardous waste per 40CFR 261.31/1, 1, 2-trichloro-1, 2, 2-trifluoroethane

14. TRANSPORT INFORMATION OTHER INFORMATION

TRANSPORT INFORMATION OTHER INFORMATION

DOT (49 CFR 172) Domestic Ground Transport	
Proper Shipping Name:	Consumer Commodity
Hazard Class or Division:	ORM-D
Identification Number:	None
Marine Pollutant:	None
IATA	
Proper Shipping Name:	Aerosols, non-flammable
Class or Division:	Division 2.2
UN or ID Number:	UN 1950

15. REGULATORY INFORMATION

REGULATORY INFORMATION

CA Proposition 65:	No California Proposition 65 chemicals are known to be present.
---------------------------	---

16. OTHER INFORMATION

OTHER INFORMATION

Estimated NFPA(R) Code:	
Health Hazard:	1
Fire Hazard:	0
Reactivity Hazard:	1
Specific Hazard:	Does not apply

NFPA is a registered trademark of the National Fire Protection Assn.

OTHER INFORMATION

Estimated HMIS(R) Code:	
Health Hazard:	1
Flammability Hazard:	0
Reactivity Hazard:	1
Personal Protection:	Does not apply

HMIS is a registered trademark of the National Paint and Coatings Assn.

OTHER INFORMATION

Prepared By:	Stephen Repetto		
Title:	Research Chemist; Safety, Health & Regulatory Affairs		
Company:	Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 06067		
(24hr.) Phone:	(860) 571-5100		
Revision Date:	January 27, 1999	Revision:	0005

NOTE: Contents in this report is based on information, which was available as of the effective date. But Loctite Corporation, and its affiliates are not responsible for guaranteeing the above data and evaluations. The above data assumes usage under normal working conditions.
This Service Bulletin is intended for use by professional, qualified technicians. Attempting repairs or service without the appropriate training, tools, and equipment could cause injury to you or others and damage to your vehicle that may cause it not to operate properly.

© 2007 Mitchell Repair Information Co., LLC.