



## **Nexteer Automotive**

Material Safety Data Sheet Requirements for Facilities  
Located in the United States

Revision: 004, 12Oc09

# Nexteer Automotive

## Material Safety Data Sheet Requirements for Facilities Located in the United States

**Revision:** Revision 003, 07OC09

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⊗: Indicates an essential information standard that must be met for all products.

# Nexteer Automotive

## Material Safety Data Sheet Requirements for Facilities Located in the United States

### Introduction

The following policies and instructions are intended as guidelines for the completion of Material Safety Data Sheets (MSDS) to Nexteer Automotive standards. The information provided will be used in programs to protect the health, safety and environment of individuals and communities associated with Nexteer Automotive sites in the United States (US). The chemical manufacturer, importer, distributor or employer preparing the MSDS shall ensure that the information is recorded accurately, reflects the scientific evidence used in making the hazard determination and complies with all applicable international, national, state, province, and local laws.

### Scope

This MSDS specification applies to Nexteer Automotive facilities located in the United States. In other countries other information may be required. This specification should be used at all Nexteer Automotive sites and joint ventures in the US where there is a legal requirement to provide MSDSs or MSDS like information unless determined otherwise by Nexteer Automotive's Divisional HMCC.

### Materials That Require MSDSs

- Most liquids, gases, pastes, powders, flakes, gels, aerosols, and many solids.
- Any product which generates dust, fumes, fog, vapor, etc., during shipping, storage, handling, use, or disposal.
- Any product with specific ventilation requirements.
- Any product with personal protective equipment (PPE) requirements or recommendations.
- Any product stored in a pressurized cylinder or container.
- Any product that emits radiation higher than background.
- Any product intended to be altered, processed, etc., (e.g., cut, mold, grind).
- Lubricants or coatings on steel or other articles.
- "Articles" that will be processed by Nexteer Automotive.
- "Consumer products" that are not used in a manner typical to a consumer.

Examples of these products include but are not limited to:

Abrasives	Explosives and explosive devices
Acids & caustics	Fertilizer, lawn, and garden
Adhesives & sealers	chemicals
Castings, forging, and materials to be machined in-house	Flux (e.g., soldering)
Cleaners	Fuels (e.g., coal & gasoline)
Compressed gases	Insulating materials
Coolants & metalworking fluids	Lubricating oils & greases

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Office supplies containing hazardous chemicals  
Oxidizers  
Packing materials with treated chemicals  
Paint & related chemicals  
Pesticides & biocides  
Printer's inks

Refrigerants  
Resins and molding materials  
Rust preventatives  
Soaps  
Solder  
Solvents  
Welding rods & wires  
Wood

(See Attachment A for specific examples and details)

## **General Instructions Applicable To All New and Updated MSDSs**

### Submission Format of MSDS Information

Nexteer Automotive requires all new and updated MSDS information to be submitted as an electronic text or graphic image. The preferred format is .pdf text; however any common text/graphic format will be accepted. The MSDS text/graphic documents must be OSHA compliant and conform to the requirements of this document. ***All confidential or trade secret information should be clearly identified on a separate page.***

Manufacturers or Suppliers should send MSDSs to the Nexteer Automotive plant requester (HMCC - Plant Administrator, or plant contact) via email attachments unless other means are specified by the requestor. Manufacturers are required to send the updates to MSDSs used by Nexteer Automotive as soon as they are available. Manufacturers with web sites containing MSDSs should also provide the URL link.

The HMCC - Plant Administrators will then coordinate all Nexteer Automotive internal communications and approvals.

### Language

The MSDS must be provided in English language.

### Readability

The MSDS must be legible. Font, point type, margin width and format for an MSDS must allow for web page viewing and printing, quality reproduction, copying, and faxing.

### Blanks/Negative Responses

Blank data fields are not acceptable as a negative response. Terms like "not applicable (NA)", "not established (NE)", "not available", "none", "none known", "unknown", "not determined", etc., may be accepted in place of data on the MSDS or addendum. If abbreviations are used for these terms, a legend must be provided explaining them.

### Full Disclosure

❖: Indicates an essential information standard that must be met for all products.

Ingredients, listed in Section 2 or on the addendum, must add up to at least 100%. Deviations from this requirement are at the discretion of the Divisional HMCC. See Section 2 of this document for details.

### Confidentiality Policy

#### **Nexteer Automotive does not enter into confidentiality or secrecy agreements for MSDS information.**

Receipt by Nexteer Automotive of MSDS, attachments or addenda marked "confidential", "proprietary", "trade secret" or words to that effect does not constitute a confidentiality or Trade secret agreement with Nexteer Automotive. Nexteer Automotive will not distribute information marked confidential etc., but will retain and store this information in a secure location. This information will not reside on the Nexteer Automotive electronic database for general viewing or printing, but will be entered into the database for the purposes of; environmental and occupational health compliance, or regulatory or legal issues involving requests from proper authorities, Industrial Hygienists and medical professionals. Material marked "Nexteer Automotive use only" will be accepted but will not constitute a secrecy agreement on the part of Nexteer Automotive. See Section 2 of this document for guidelines on protecting trade secret information.

### Addendum/Addenda

A company's MSDS may be submitted along with a separate page listing any remaining data required by Nexteer Automotive. It may be called an addendum, attachment, additional information or words to that effect. This addendum, however, must be clearly labeled with the trade name and must be dated. See Required Submission Format of MSDS Information for the proper format.

### Regulatory Compliance

All suppliers are expected to comply with local, regional, and national regulations. For example, the US maintains listings (Toxic Substance Control Act (TSCA)) of chemicals approved for commercial commerce within their borders that may require usage reports and/or are restricted in some fashion. Suppliers must include this information on the MSDS. Furthermore, the MSDS or addendum must include:

- A listing of all hazardous ingredients constituting 1% or more of the product
- A listing of all ingredients constituting 0.1% or more of the product that are recognized as carcinogens
- Written statements of compliance to all local, regional, national and international regulations for all non-listed ingredients constituting less than 1% of the product

### Dates Policy & Definitions

- The MSDS date of preparation or effective/revision date must be no more than 3 calendar years old (current year minus 3 years). See Section 1 of this document, Item #5 for exceptions to this rule.
- Date of Preparation - The date the MSDS was prepared or originated. This could also be the effective/revision date.
- Effective/Revision Date - The date the MSDS is considered to be as complete and accurate as possible in describing the product as provided and relevant information such as manufacturer/supplier name, address and phone number. The effective and/or revision date will change as the product formulation changes or when new data on health, safety, environmental impact, regulations, toxicology or handling information becomes available.

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- Print Date - The print date can be considered the effective date if the MSDS came directly from the Manufacturer.

### Essential versus Optional Information

The following 16 section format, based on the ISO 11014 and ANSI Z400.1 standards, is the preferred format for an MSDS, but other formats are acceptable.

Those items identified with a circled star (★) represent minimum requirements that must be met for all materials. Those items not identified with (★) are not required, but are desirable.

Data sheets and addenda that do not meet these requirements will be labeled non-compliant and remain so as long as these key areas of information are not provided. In these cases, Nexteer Automotive sites will be encouraged to find alternate materials from compliant suppliers. Suppliers are strongly encouraged to supply all the other remaining information but will not be labeled as compliant if that information is incomplete.

The following are section-by-section instructions for Sections 1 - 16 of the MSDSs.

### **SECTION 1 - Product and Company Identification**

- ★ 1. Indicate the product name or number as it appears on the container label.
- ★ 2. Provide appropriate synonyms that apply to the product.
- ★ 3. Indicate the name of the manufacturer as it appears on the container label. If the supplier is different from the manufacturer, then clearly identify the responsible party(ies) preparing or distributing the MSDS who could provide additional information on chemical components and/or emergency procedures. Include complete addresses and phone numbers for each party. Indicate the specific nature of the phone numbers such as information, fax, emergency, national emergency response lines (e.g., INFOTRAC - USA, NRC - National Response Center USA).
- ★ 4. Indicate the preparer's name and title and include a phone number if it is different from the emergency or information phone number.
- ★ 5. Clearly indicate the date of preparation or the revision/effective date of the MSDS. If the date is more than three calendar years old and no changes have been made to the data sheet (e.g. area code, address, verbiage) or the product, then a written statement with a current date may be submitted and it will be considered the effective date in lieu of revising the document.

### **SECTION 2 - Composition/Information on Ingredients**

Compositional disclosure information is required by Nexteer Automotive Health, Safety and Environmental personnel to fulfill two major objectives;

1. Train employees working with chemical materials regarding their hazards, safe use, handling & disposal in order to fulfill internal Health & Safety requirements as well as International Occupational regulatory requirements ( i.e. OSHA Hazard Communication Std. 1910.1200 etc.).
2. Ensure environmental compliance and manage chemical risks.

One hundred percent disclosure (see Full Disclosure paragraph above for additional details) is required to fulfill both of these objectives. In cases where CAS # disclosure of unique ingredients to your formulation is considered "sensitive" (**not a "Trade Secret"**), Nexteer

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Automotive will accept ingredient addendum's to the MSDS and will maintain this information separate from that used for employee training.

Nexteer Automotive will accept OSHA compliant MSDS information for use in employee training provided the requirements listed in items 1, 2 & 3 below, are met.

- ★ 1. Nexteer Automotive requires 100% disclosure of all ingredients found in a product. This means an ingredient present at 1% or greater (0.1% for carcinogens) must be listed, even if it is generally considered non-hazardous (e.g., water). In addition, ingredients present at less than 1% in the product must be listed if those ingredients would be present at 1% or greater in the “dry” product. For example, if zinc oxide is present at 0.7% in the product as shipped, but is present at 1.2% after applying the product to a substrate, this ingredient must be listed. If a CAS (Chemical Abstract Services) registry number exists for an ingredient, it should be listed along with the proper chemical name or common chemical name or synonym on the MSDS. Exceptions to CAS number disclosure for trade secret ingredients may be granted if a good chemical description is provided (see below for an explanation of a “good chemical description”) and if supplemented with toxicity data outlined below in section 4.

If a CAS registry number of an ingredient is not available because the item is not a discrete chemical that can be represented by a chemical formula or is a mixture where the identity of individual components may be unknown or may vary, then a good chemical description must be provided. Examples of good chemical descriptions include, but are not limited to, those shown in the following table:

<u>Unacceptable Name</u>	<u>Acceptable Name</u>
Resin	[Alkyd or benzophenol or other] resin (see other examples below)
Urethane resin/polymer	Diphenylmethane diisocyanate (MDI) based urethane resin
Polyurethane resin/polymer	Diphenylmethane diisocyanate (MDI) based urethane resin
Hydrocarbon resin	Alkyd resin
Plasticizer	Phthalate plasticizer
Surfactant	Linear alkyd sulfonate (LAS)
UV Absorber	Benzotriazole
Additive	A specific chemical family is required
Epoxy resin	Bisphenol A diglycidyl ether epoxy resin
Phenol resin/polymer	benzophenol based resin
Thickener	Starch (gelatin, semi-synthetic cellulose)
Pigment or Colorant	Yellow iron oxide pigment
Inhibitor	Acetanilide
Antioxidant	β-Naphthylamine
Curing agent	TDI based urethane prepolymer
Emulsifier	Fatty acid emulsifier (C>9)
Detergent	Alkyl benzene sulfonate (ABS) (C>10)

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1. If hazards are attributed to a component or impurity in this ingredient, then this information should be cited. In these situations where CAS numbers are not available, Premanufacturing Notification (PMN) Number(s) or Environmental Protection Agency (EPA), Accession Numbers or equivalent, should be submitted. New Jersey Trade Secret Numbers (NJT #) are not acceptable.

As mentioned above, all ingredients constituting 1% or more of the product must be listed. Components recognized as carcinogens by International Agency for Research on Cancer (IARC), or in the United States by National Toxicology Program (NTP) or Occupational Safety and Health Administration (OSHA), must be listed if they are present in the product at concentrations of 0.1% or greater. In addition, biocides used in metalworking fluids, flame retardants, and pigments having concentrations of 0.1% or greater must be listed. Disclosure must comply with country of origin and country of destination classification of hazardous and carcinogenic substances.

Chemicals subject to national reporting requirements such as Superfund Amendments and Reauthorization Act (SARA) or other Federal and State regulations (i.e. Michigan Air Toxics Rules etc.), must always be submitted with CAS registry numbers. Similarly chemicals identified in environmental regulations such as the Known or suspected carcinogens must also be reported with CAS registry numbers. These items cannot be claimed as trade secret.

2. Indicate the percentage of each ingredient in the product and identify if the value represents percent by weight or percent by volume. Ranges may be used to represent the substance content. Summation of maximum ranges must equal or exceed 100%. Summation of minimum ranges must equal or be less than 100%. Carcinogens and chemicals subject to national reporting requirements by CAS registry number (e.g., SARA 313, NPRI) should be given in exact percentages. For non-carcinogenic ingredients present in the product at <1%, but still provided on the MSDS, T for trace will be accepted in place of a numeric value (for carcinogenic, biocide, flame retardant, and pigment ingredients, T may be used for items < 0.1%). One item on the list may be listed as “balance” or “remainder”.
  - If the ingredient is present in the product at less than 1% and is not a hazardous substance, carcinogen, or known to cause toxicological problems in and of itself, or during processing, but is still provided on the MSDS, then a functional description such as “additive” will be acceptable.
  - In addition, similar items may be grouped (e.g., “colorants”), even if their total is greater than 1% (0.1% for appropriate chemicals), provided that no one chemical is present in the product at > 1%.
3. List appropriate exposure guidelines or limits for all of the product’s components identifying the source, e.g., Occupational Safety and Health Administration Permissible Exposure Limits (OSHA PEL), American Conference of Governmental Industrial Hygienists Threshold Limit Values (ACGIH TLV), National Institute of Occupational Safety and Health Recommended Exposure Limits (NIOSH REL), American Industrial Hygiene Association Workplace Environmental Exposure Levels (AIHA WEEL), manufacturer standard, etc., and clearly indicating the units of measure for the given guidelines. Ingredients with associated occupational exposure limits or recommendations from the entities identified cannot be claimed as Trade Secrets. Their disclosure is essential to our Industrial Hygiene efforts to control workplace exposure.
4. It is not the intent of Nexteer Automotive to obtain exact formulations of trade secret

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ingredients. Nexteer Automotive is committed to protection of the environment and the health and safety of its employees, complying with regulatory reporting requirements and managing the chemical risks associated with the manufacture and use of our products. Therefore, “trade secret” ingredients should be used infrequently, and then, only in conjunction with a good chemical description and when accompanied by toxicological information as outlined below.

Ingredient disclosure Addendum’s to the MSDS should only be used when absolutely necessary in order to limit access to possibly sensitive information. The corresponding MSDS ingredient information must adhere to the requirements outlined above in sections 1, 2 & 3. Requests for addendum ingredient information to be secured within Nexteer Automotive for regulatory compliance and chemical risk issues **should not be construed as a confidentiality agreement**. Nexteer Automotive Environmental, Health & Safety personnel will have access to this data and will share it with employees, customers, regulators or community representatives to address chemical risk issues when necessary.

For any ingredient that is not identified by the CAS number, the following toxicological information requirements apply.

- If the component is greater than 10% of the chemical material, industrial hygiene sampling, monitoring and/or toxicological & environmental fate data must be provided on the component.
- If the component is less than 10% of the chemical material, industrial hygiene sampling, monitoring and/or toxicological & environmental fate data may be required.
- If industrial hygiene or toxicity / fate information is not available, then a statement or words to that effect must appear on the MSDS or addendum.

See Sections 3, 8, 9, 10, 11 and 12 for examples of industrial hygiene and toxicology information.

### **SECTION 3 - Hazards Identification**

1. Provide a clear, brief overview describing the material’s appearance and most significant immediate concerns for emergency response personnel. This section may contain adverse human health effects, environmental effects, physical or chemical hazards.
- ✪ 2. Indicate the primary routes of entry such as skin, eye, inhalation, and ingestion or any combination thereof. If no applicable information is available; then a statement or words to that effect must appear on the MSDS or addendum.
- ✪ 3. Describe medical conditions (e.g., asthma) which are generally recognized as being aggravated by exposure to the product or its constituents. If no applicable information is available, then a statement or words to that effect must appear on the MSDS or addendum.
4. Provide NFPA ratings for health hazard, fire hazard, reactivity, and specific hazard.

### **SECTION 4 -First-Aid Measures**

- ✪ 1. Provide emergency and first aid instructions to be followed in the event of overexposure to the product. If no applicable information is available, then a statement or words to that effect must appear on the MSDS or addendum.
2. Describe any procedures to be used by trained medical personnel above and beyond first-aid procedures in event of overexposure.

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3. List any known antidotes, if applicable.
4. Include notes to physicians, if applicable.
5. Provide advice for the protection of first-aiders, if appropriate.

#### **SECTION 5 - Fire-Fighting Measures**

- ★ 1. Indicate the flash point of the product and specify the method (TCC, COC) used. Use exact values whenever possible. For those instances where the flash point is difficult to determine (e.g., it boils out of the cup), or extremely dangerous to test, the following convention will be accepted: If the flash point is greater than 212°F (100°C), then >212°F (100°C) may be used if the actual value is unknown. If the flash point is less than 0°F (-17°C), then <0°F (-17°C) may be used. If no applicable information is available, then a statement or words to that effect must appear on the MSDS or addendum.
- ★ 2. Lower Explosive Limits/Upper Explosive Limits (LEL/UEL) must be provided for liquids and gases. If no applicable information is available, then a statement or words to that effect must appear on the MSDS or addendum.
- 3. List autoignition temperature for the product, if applicable.
- ★ 4. Specify the appropriate fire extinguishing media. If no applicable information is available, then a statement or words to that effect must appear on the MSDS or addendum.
- ★ 5. Indicate fire or explosion hazards. If no applicable information is available, then a statement or words to that effect must appear on the MSDS or addendum.
- 6. Describe special fire fighting procedures, if applicable.
- ★ 7. Give health, flammability and reactivity ratings for the product using National Fire Protection Association (NFPA) criteria, if available.

#### **SECTION 6 - Accidental Release Measures**

- ★ 1. Indicate steps to be taken in case material is released or spilled including recovery, neutralization or disposal if they are different than Section 13.
- 2. Describe expected environmental impact resulting from the release of the product.
- 3. Provide information on secondary hazards and their prevention (e.g., contaminated surfaces may be slippery, post appropriate warnings, etc.).

#### **SECTION 7 - Handling and Storage**

- ★ 1. Indicate storage precautions (e.g., incompatible products, conditions to avoid, temperature requirements, etc.). If no applicable information is available, then a statement or words to that effect must appear on the MSDS or addendum.
- 2. Indicate handling precautions recommended for other activities associated with the product such as grinding, power sanding, welding, etc.

#### **SECTION 8 - Exposure Controls/Personal Protection**

- ★ 1. If appropriate, indicate engineering measures or controls recommended to reduce exposure including ventilation type and rate.
- ★ 2. Provide any generally applicable personal protective equipment (PPE) recommendations in accordance with the intended use of the product including specific suitable materials (e.g., neoprene gloves - not impervious gloves; safety glasses - not eye protection; organic vapor respirator - not respirator) for respiratory, hand, eye, skin and/or body protection. If applicable, include qualifiers such as processing conditions, quantities, concentrations, temperature and/or pressure conditions that warrant special and/or additional PPE precautions. If no applicable

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information is available, then a statement or words to that effect must appear on the MSDS or addendum.

- ✧ 3. If appropriate, indicate any specific hygiene measures or practices that should be followed.

## SECTION 9 - Physical and Chemical Properties

- ✧ 1. Identify the physical and chemical properties that characterize the product including information on physical state. Report data in appropriate units of measurement with pertinent reference conditions and/or test methods.
- ✧ 2. List the specific gravity or range for all liquid and semi solid materials (water = 1). If a range must be used, then it should be no greater than  $\pm 0.05$ .
- 3. Indicate the density of the product.
- ✧ 4. Provide the theoretical or analytical Volatile Organic Content (VOC) or Reportable VOC (RVOC) in lbs/gal, gms/liter, or percent by weight, or if a solid, in gms/gm or lbs/lb.
  - For surface coatings (such as paints, inks, and adhesives) and solvent-based materials, analytical VOC content is preferred for all products and is required for productive materials. The analytical method used must be specified (e.g., U.S. EPA Method 24 or 24a).
  - For non-surface coatings, any constituent with a vapor pressure  $>0.1$  mm HG at  $20^{\circ}\text{C}$  or at intended use conditions (e.g., heated fluids) and/or containing  $< 12$  carbon atoms is considered to be a Reportable VOC (RVOC). Additionally, light naphthenic and paraffinic distillates should also be considered to be RVOCs.
  - If the VOC is 0 lb/gal, then a statement such as 0, zero, none, no VOC/RVOC present, or words to that effect must appear on the MSDS or addendum.
  - If the product obviously has no VOC content because of its ingredients, physical state (e.g., wood, oxygen, welding rod, inorganic) or generally accepted processing practices, then the VOC/RVOC statement does not have to appear on the MSDS or addendum. If the product releases VOCs or RVOCs during processing (e.g., plastics, elevated temperatures), then a VOC/RVOC value as described above must be reported.
- ✧ 5. Provide a pH value or description. Use exact values whenever possible. Terms such as acidic, neutral, caustic, or alkaline may be accepted in some situations but more specific information such as  $<4$  or  $>10$  are preferred when actual values are not available. In addition, specify if the reported pH represents the packaged material (e.g., concentrate) or the typical use dilution. When a dilution pH is given, list typical dilution percentage. If no applicable information is available, then a statement or words to that effect must appear on the MSDS or addendum.
- 6. Indicate the specific temperature ( $^{\circ}\text{F}$  or  $^{\circ}\text{C}$ ) at which changes in physical state occur (e.g., boiling point, freezing/melt point).
- 7. Indicate the vapor density and specify the temperature.
- 8. Indicate the vapor pressure in mm Hg and specify the temperature.
- 9. Indicate the percent solid by weight and for paints by volume.
- 10. Indicate the evaporation rate. Specify the reference solvent (e.g., n-butyl acetate or ether as equal to 1).
- 11. Indicate the product's solubility in water (%).
- 12. Indicate the molecular weight of products that are pure chemicals (e.g., gases).
- 13. Indicate the viscosity (SUS) of the product as supplied and specify the temperature.

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- ✧ 14. Include additional chemical and physical data as deemed necessary to promote safe use and handling of the product (e.g., color, odor, radioactivity, particle size, softening point, octanol/water partition coefficient).

### **SECTION 10 - Stability and Reactivity**

- ✧ 1. State if the material is stable or unstable under normal, anticipated storage and handling conditions of ambient temperature and pressure.
- ✧ 2. Indicate any hazardous material releases that will or may occur including both potential and actual releases through normal processes such as baking, welding, spraying, etc., that are not specifically listed as ingredients in Section 2 or listed below as hazardous decomposition products.
- 3. List any conditions such as heat, pressure, shock, or other physical stresses that might result in a hazardous situation.
- 4. Indicate incompatible materials that the product could react with to produce a hazardous situation.
- ✧ 5. Indicate hazardous decomposition products produced by burning, oxidation, heating or chemical reaction (e.g., phenol, formaldehyde and isocyanates.)
- 6. State if the material is subject to hazardous polymerization and specify the conditions that might induce polymerization.

### **SECTION 11 - Toxicological Information**

- ✧ 1. Summarize the information on the various possible health effects which might arise if the user comes in contact with the product. If no data is available on the product, then information on the hazardous constituents may be used. Information may cover clinical test data on acute toxicity (e.g., LD50-oral/dermal [species specific], LC50-inhalation [species specific]), irritation scores, target organs, effect and no-effect levels, species differences, local effects, subchronic and/or long term toxicity, and sensitization. If applicable, list the information according to different exposure routes (e.g., inhalation, skin contact, eye contact and ingestion).
  - If applicable, list effects due to single exposure, repeated exposure and continuous exposure.
  - If applicable, list immediate and delayed effects.
  - If applicable, include specific results from studies or reports in areas such as teratogenicity, neurotoxicity, mutagenicity, reproductive effects and epidemiology.
- ✧ 2. State the carcinogenic status of any ingredient per NTP, IARC, OSHA, or ACGIH.

### **SECTION 12 - Ecological Information**

- 1. Summarize information on the possible environmental effects of the material including potential environmental impact, soil mobility, product persistence or degradability, bioaccumulation and ecotoxicology data. If no applicable information is available, then a statement or words to that effect should appear on the MSDS or addendum.
- 2. Provide a Material Environmental Data Sheet (MEDS), if available.

### **SECTION 13 - Disposal Considerations**

- ✧ 1. Recommend method(s) for safe and environmentally preferred disposal of uncontaminated bulk product, residue, or emptied packaging, for the country of intended use.

### **SECTION 14 - Transport Information**

✧: Indicates an essential information standard that must be met for all products.

- ✧ 1. List appropriate national and international information on codes, classifications, hazardous material descriptions, proper shipping names and packing groups for regulatory purposes differentiated by mode of transport.
  - US Suppliers: indicate Department of Transportation (DOT) hazardous materials description/proper shipping name, hazard class, UN (United Nations)/NA (North American) identification numbers and packing group according to 49 CFR 172.101 and other international restrictions as applicable. Include classification changes based on quantity, packaging or shipment. If the material is not regulated by DOT, include a statement to that effect.
- 2. Indicate additional transportation restrictions.
- 3. Specify any precautionary transport measures and/or conditions.

### **SECTION 15 - Regulatory Information**

- ✧ 1. Indicate information on regulations specifically applicable to the chemical product and/or its constituents and include appropriate international and national requirements.
  - US:
    - ⇒ List the chemical identity of any EPCRA (SARA Title III) 302 Extremely Hazardous Substance. Provide its Threshold Planning Quantity (TPQ) and its Reportable Quantity (RQ).
    - ⇒ Indicate the appropriate categories for the product under EPCRA (SARA Title III) 311 and 312 (i.e., immediate health hazard, delayed health hazard, fire hazard, sudden pressure release hazard, and reactivity hazard). Specify product components subject to EPCRA (SARA Title III) 313 reporting. See Section 2 for chemical name, CAS number and percentage requirements.
    - ⇒ Indicate whether the product or its constituents are listed in the EPA Toxic Substance Control Act (TSCA) inventory. Where appropriate include information on other elements of TSCA such as Significant New Use Rule (SNUR), Final Consent Orders, Research and Development Limitations, Export Notification Requirements, and Exemptions from TSCA (e.g., pesticides, foods, and drugs).
    - ⇒ List the RCRA hazardous waste codes that apply to the product as packaged.
    - ⇒ List the CERCLA Reportable Quantity (RQ) for the product and its constituents.
    - ⇒ (DSL) or Non-Domestic Substance List (NDSL), Export Notification.
    - ⇒ National Pollutant Release Inventory (NPRI)
- ✧ 2. List any state or province health & safety and environmental regulations for ingredients contained in the product for the states or provinces where the material is manufactured or marketed. Include state right-to-know listed substances or specialized data requirements.

### **SECTION 16 - Other Information**

- 1. Use this section for information that does not fit into a previous section. Examples of data to include here are: label text, hazard ratings, revision indicators, key/legend, references, recommended use, special training needs and possible restrictions.

✧: Indicates an essential information standard that must be met for all products.

2. Indicate the sections that have been revised or changed since the previous issue of the MSDS.

For additional information or compliance questions regarding this document contact:

Douglas M. Jahn

**Title:** Chief Chemist

**Co:** Nexteer Automotive

**Plant Address:** 3900 E. Holland Rd.

**City:** Saginaw **State:** MI

**Zip:** 48601-9494

**Phone:** 989-757-5873

**Fax:** 989-757-5090

**Email:** doug.jahn@delphi.com

## Document Revision Record

Revision Symbol	Revision Date	Authority	Description of Changes
001	25Au09	D. Jahn	Adoption and revision of Delphi Corp Guidelines to apply to Delphi Steering and initial release
002	10Se09	D. Jahn	Addition of cover page and updated Attachment A
003	07Oc09	D. Jahn	Change from Delphi Steering to Nexteer Automotive
004	12Oc09	D. Jahn	Update Attachment A

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## ATTACHMENT A

<b>Table #1 Clarification on Items Requiring / Not Requiring MSDS Approval (not limited to these items)</b>		
<b>General Product Description</b>	<b>MSDS Required</b>	<b>MSDS not Required</b>
Abrasives	<ul style="list-style-type: none"> <li>• Any abrasive that is likely to generate a dust during use</li> <li>• Abrasives in the form of pastes, liquids, or slurries</li> </ul>	<ul style="list-style-type: none"> <li>• Abrasive materials that don't generate airborne dust</li> <li>• Sandpaper and emery cloth</li> </ul>
Acids, caustics, etchants, & corrosives	<ul style="list-style-type: none"> <li>• All</li> </ul>	
Adhesives and sealers	<ul style="list-style-type: none"> <li>• All liquid / spray adhesives and sealants for direct and indirect applications</li> <li>• Pipe dope / liquid sealants</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-formed gaskets that don't require curing / evaporation</li> <li>• PVC / PTFE pipe tape, etc.</li> </ul>
Bearing assemblies	<ul style="list-style-type: none"> <li>• Non-sealed type bearings containing a lubricant</li> </ul>	<ul style="list-style-type: none"> <li>• Non-lubricated bearing assemblies</li> <li>• Sealed bearing assemblies containing a lubricant</li> </ul>
Castings / parts that are machined in-house	<ul style="list-style-type: none"> <li>• Any item purchased for use at our facilities which will be physically altered from its initial shape or design via in-house machining operations.</li> </ul>	<ul style="list-style-type: none"> <li>• Parts or castings that are not machined in-house</li> </ul>
Cleaners	<ul style="list-style-type: none"> <li>• All window, floor, bathroom, countertop, glass, machine, tool, and part chemical cleaners</li> <li>• Contact cleaners and solvents</li> <li>• Parts washer solvents</li> </ul>	<ul style="list-style-type: none"> <li>• Water when used as cleaner by itself</li> </ul>
Coolants & metalworking fluids	<ul style="list-style-type: none"> <li>• Equipment coolants</li> <li>• Vehicle coolants (anti-freeze)</li> <li>• Cooling tower chemicals</li> <li>• All metalworking fluids</li> <li>• System additives</li> </ul>	<ul style="list-style-type: none"> <li>• Water when used as coolant or metalworking fluid</li> </ul>
Compressed Gases	<ul style="list-style-type: none"> <li>• All, including those contained in equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Compressed air internally generated within a machine or in plant piping systems</li> </ul>
Explosives and explosive devices	<ul style="list-style-type: none"> <li>• Automotive crash safety devices</li> <li>• All other explosive materials on their own or contained in parts</li> </ul>	
Fertilizer, lawn and garden chemicals	<ul style="list-style-type: none"> <li>• All</li> </ul>	
Flux (e.g., soldering, welding)	<ul style="list-style-type: none"> <li>• All</li> </ul>	
Fuels (e.g., coal & gasoline)	<ul style="list-style-type: none"> <li>• All combustible fuels including, but not limited to gasoline, diesel fuels, solid fuels, propane, butane,, etc.</li> </ul>	
Grinding and cut-off wheels	<ul style="list-style-type: none"> <li>• All</li> </ul>	
Insulating materials	<ul style="list-style-type: none"> <li>• Exposed fibrous or spun materials (fiberglass bats)</li> <li>• Sprayed materials (foams, fibers, particulates, etc.)</li> <li>• Materials that cure or dry</li> </ul>	<ul style="list-style-type: none"> <li>• Sheet, solid, and expanded pad-like foams</li> </ul>
Hydraulic and lubricating oils & greases	<ul style="list-style-type: none"> <li>• All oils and greases in neat form for direct and indirect internal use or dispensing; includes all types of containerization.</li> </ul>	<ul style="list-style-type: none"> <li>• Oils and greases internally contained in purchased articles if typical use or servicing does not include employee exposure to those products</li> </ul>
Medical supplies, drugs and emergency eyewash solutions		<ul style="list-style-type: none"> <li>• MSDS not required</li> </ul>
Office supplies of a chemical nature	<ul style="list-style-type: none"> <li>• Liquid toner for copy machines</li> <li>• Powder toner for copy machines (drum type cartridges used in most large office printers as well as bulk refill containers that get dumped into machines)</li> <li>• Correction fluids</li> <li>• Liquid glues / adhesives, glue sticks</li> <li>• Computer printer ink / toner if not contained in a sealed cartridge</li> <li>• Markers, highlighters</li> </ul>	<ul style="list-style-type: none"> <li>• Pens &amp; pencils</li> <li>• Computer printer toner / ink if contained in a sealed cartridge that is not opened during use</li> <li>• Sealed batteries such as those used for power tools, flashlights, cell phones, laptops, watches, electronic equipment (examples include, but not limited to: AAA, AA, C, D, 9V sizes, etc...)</li> </ul>
Oxidizers	<p>Examples include, but are not limited to</p> <ul style="list-style-type: none"> <li>• Concentrated oxygen &amp; ozone</li> </ul>	

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Oxidizers (cont.)	<ul style="list-style-type: none"> <li>• Most compounds containing halogens (chlorine, fluorine, iodine, bromine, etc.)</li> <li>• Hypochlorite (bleach)</li> <li>• Many chlorates, nitrates, &amp; chromates</li> <li>• Most peroxides</li> <li>• Nitrous oxide</li> </ul>	
Packaging materials treated with chemicals	<ul style="list-style-type: none"> <li>• Vapor Corrosion Inhibiting (VCI) containers and materials</li> <li>• Oil / resin / wax impregnated packaging materials</li> </ul>	<ul style="list-style-type: none"> <li>• General use cardboard for packaging and separators unless specifically treated with chemicals for unique performance characteristics</li> </ul>
Pesticides, fungicides & biocides	<ul style="list-style-type: none"> <li>• All, including those used for pest / insect control and bacterial/fungal control in metalworking fluids</li> </ul>	
Printing inks	<ul style="list-style-type: none"> <li>• Inks used in industrial type printing machines for marking parts &amp; containers</li> <li>• Some inks used for generating labels for containers – see “Office supplies” above</li> </ul>	<ul style="list-style-type: none"> <li>• Some inks used for generating labels for containers – see “Office supplies” above</li> </ul>
Paint and related chemicals	<ul style="list-style-type: none"> <li>• All spray, liquid, or gel type paints</li> <li>• All solvents (except water)</li> <li>• Chemical paint removers / strippers</li> </ul>	<ul style="list-style-type: none"> <li>• Corrosion protection paints on articles when received in the dried/cured state</li> </ul>
Refrigerants	<ul style="list-style-type: none"> <li>• All, including refrigerants contained in enclosed/sealed units or equipment</li> </ul>	
Resins and molding materials	<ul style="list-style-type: none"> <li>• Resins</li> <li>• Dyes</li> <li>• Molding lubricants</li> <li>• Mold purging and cleaning chemical materials</li> </ul>	
Rust preventatives	<ul style="list-style-type: none"> <li>• Liquid or paste-like materials either as neat product for internal use or on incoming articles</li> </ul>	<ul style="list-style-type: none"> <li>• Corrosion protection paints on articles when received in the dried/cured state</li> </ul>
Soaps	<ul style="list-style-type: none"> <li>• All soaps / detergents / surfactants used in a manufacturing process</li> <li>• Liquid and bar hand soaps</li> <li>• Floor and machine soaps / cleaners</li> <li>• Janitorial soaps / cleaners</li> </ul>	
Solder	<ul style="list-style-type: none"> <li>• All solders intended for internal process melting</li> </ul>	<ul style="list-style-type: none"> <li>• Solder received on articles and not intended to be process melted within Delphi Steering</li> </ul>
Solvents	<ul style="list-style-type: none"> <li>• All except water</li> </ul>	
Welding rods & wires	<ul style="list-style-type: none"> <li>• All</li> </ul>	
Wood	<ul style="list-style-type: none"> <li>• Pallets treated with fungicides, biocides, or pesticides</li> <li>• Pressure-treated (CCA, ACQ“, wolmanized”, etc.) lumber</li> </ul>	<ul style="list-style-type: none"> <li>• General construction wood which is not pressure treated</li> <li>• Pallets with no chemical treatment</li> </ul>

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