

## SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006  
According to Regulation (EU) No. 453/2010

**TOTAL AUTO**  
SOLUTIONS

Ceramic Coating  
Revision Date 25 April 2016

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Commercial Product Name: Ceramic Coating  
Product type: Thermoset Thermoplastic Nano Coating Solution

#### 1.2 Relevant identified uses of substance or mixture and uses advised against

Relevant identified uses: Paint Protection for automobile body.

#### 1.3 Details of the supplier of the safety data sheet supplier (manufacturer/importer/ Downstream user/distributor)

Company: Total Auto Solutions  
11063-D South Memorial Drive  
Tulsa, Ok 74133 USA

Telephone: 19182822288  
E-mail: info@totalauto.solutions

#### Dept.responsible for information:

E-mail(competent person) : info@totalauto.solutions

#### 1.4 Emergency telephone number

National Poison Control Center: Contact Your Local Poison Control Agency

### SECTION 2: Hazards Identification

#### 2.1 Classification of the substance or mixture

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

Aspiration Toxicity Category 1  
H304: May be fatal if swallowed and enters airways

Classification according to Directive 67/548/EEC or Directive 1999/45/EC  
Xn; R65 Harmful may cause lung damage if swallowed. ·



S Words:  
S2: Keep out of the reach of children.  
S46: If swallowed, seek medical advice immediately and show this container or label.  
S61: Avoid release to the environment. Refer to special instructions/safety data sheet

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### OSHA Hazard Communication Standard

HMIS Ratings (scale 0-4)

HEALTH: 1 FLAMMABILITY: 1 REACTIVITY: 0

#### PHYSICAL/CHEMICAL EFFECTS

Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited. Material can accumulate static charges, which may cause an ignition.

#### HEALTH EFFECTS

Repeated exposure may cause skin dryness or cracking. If swallowed, may be aspirated and cause lung damage. May be irritating to the eyes, nose, throat, and lungs.

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks, which may vary from person to person.

#### 2.2 Label Elements

The product is classified and labelled according to EC directives or corresponding national laws.

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

#### Hazard Pictograms



Danger

GHS08

#### Hazard Statements:

H304: May be fatal if swallowed and enters airways

#### Precautionary Statements:

##### Response Precautionary Statements:

P301+310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/...

P331: Do NOT induce vomiting.

##### Storage Precautionary Statements:

P405: Store locked up.

##### Disposal precautionary statements:

P501: Dispose of contents/container to [in accordance with local/regional/national/international regulation (to be specified)].

#### 2.3 Other Hazards

None known.

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### SECTION 3: Composition Information

#### 3.1 Mixtures

##### Hazardous ingredients

Classification according to Regulation (EC) No. 1272/2008 [CLP]

IDENTITY	%	CAS NO.	EC NO	EC INDEX NO	HAZARD CLASSIFICATION
- HYDROCARBONS -COMMERCIALY CONSERVED FORMULA	>85 <35	64742-47-8 -	265-149-8 -	649-422-00-2 -	Asp. Tox. 1 H304

##### Additional information

For explanation of abbreviations see section 16.

### SECTION 4: First Aid Measures

#### 4.1. Description of first aid measures

##### INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

##### SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

##### EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

##### INGESTION

Seek immediate medical attention. Do not induce vomiting.

#### 4.2. Most important symptoms and effects, both acute and delayed

In all cases of doubt, or when symptoms persist, seek medical advice.

#### 4.3. Indication of any immediate medical attention and special treatment needed

##### NOTE TO PHYSICIAN

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately

### SECTION 5. FIRE FIGHTING MEASURES

#### 5.1 Extinguishing Media

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight streams of water

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#### 5.2. Special hazards arising from the substance or mixture

Hazardous Combustion Products: Smoke, Fume, Incomplete combustion products, Oxides of carbon Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

#### 5.3 Advice for firefighters

Evacuate area. Fire fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire-exposed surfaces and to protect personnel.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with spilled material. Use personal protective equipment. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for Personal Protective Equipment.

#### 6.2. Environmental precautions

##### Spill Management

**Land Spill:** Stop leak if you can do so without risk. Note: Local regulations may prescribe or limit action to be taken.

**Water Spill:** Prevent product from entering drains.

Stop leak if you can do so without risk. Warn other shipping. Note: Local regulations may prescribe or limit action to be taken.

##### Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

#### 6.3. Methods and material for containment and cleaning up

##### Land Spill:

Absorb or cover with dry earth, sand or other noncombustible material and transfer to containers. Recover by pumping or with suitable absorbent.

**Water Spill:** Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants. Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted.

#### 6.4. Reference to other sections

Observe protective provisions (see chapter 7 and 8).

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### SECTION 7: Handling And Storage

#### 7.1. Precautions for safe handling

##### Advices on safe handling

Avoid contact with skin. Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Consult local applicable standards for guidance.

##### Precautions against fire and explosion:

Material can release vapours that readily form flammable mixtures. Vapour accumulation could flash and/or explode if ignited. Material can accumulate static charges, which may cause an ignition.

Loading/Unloading Temperature: [Ambient] Transport Temperature: [Ambient]

Transport Pressure: [Ambient]

Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Storage:

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

Storage Temperature: [Ambient]

Storage Pressure: [Ambient]

Suitable Containers/Packing: Tank Cars; Barges; Drums; Tank Trucks

Suitable Materials and Coatings (Chemical Compatibility): Teflon; Polyethylene; Carbon Steel; Polypropylene

Unsuitable Materials and Coatings: Polystyrene; Butyl Rubber; Natural Rubber; Ethylene-propylene-diene monomer (EPDM)

#### 7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use. Read label before use.

### SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### 8.1. Control parameters

Engineering Controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider: Adequate ventilation should be provided so that exposure limits are not exceeded

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#### 8.2. Exposure controls

##### Personal Protection

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: Half-face filter respirator

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**Hand Protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

If prolonged or repeated contact is likely, chemical-resistant gloves are recommended. If contact with forearms is likely, wear gauntlet-style gloves.

**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

**Specific Hygiene Measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.

Practice good housekeeping.

##### Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

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### SECTION 9: Physical Data

#### 9.1. Information on basic physical and chemical properties

Form: Liquid  
Colour: Colourless  
Odor: Characteristic  
Boiling Point: 175° @ 4mm  
Specific Gravity: 0.88  
Vapor Density (air=1): >2.52  
% volatiles: %100  
Autoignition temperature: 275°C  
Explosion limits: Lower: 0.9%v/v  
Freezing Point: -25°C  
Vapor Pressure, 10 mm Hg @20°C  
Solubility in water: nonmiscible  
Evaporation rate: 1.4  
Flash Point: 68 °C  
Upper: 12%v/v

#### 9.2. Other information

No data available

### SECTION 10: Stability And Reactivity

#### 10.1. Reactivity

Reacts with water and moisture in air liberating methanol.

#### 10.2. Chemical stability:

Stable in sealed containers stored.

#### 10.3. Possibility of Hazardous Reactions

Reacts with water and moisture in air liberating methanol.

#### 10.4. Conditions to avoid:

Combustible; avoid contact with heat, sparks or open flame.

#### 10.5. Incompatibility (materials to avoid):

Avoid contact with peroxides, oxidizing agents, alcohols and acids.

#### 10.6. Hazardous decomposition products:

Organic amine vapors.

### SECTION 11: Toxicological Information

#### 11.1. Information on toxicological effects

Basis for Assessment: Information given is based on product testing, and/or similar products, and/or components.

**Acute Oral Toxicity:** Expected to be of low toxicity: LD50 >2000 mg/kg, Rat  
Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis, which can be fatal.

**Acute Dermal Toxicity:** Expected to be of low toxicity: LD50 >2000 mg/kg, Rat  
Acute Inhalation Toxicity: Low toxicity: LC50 greater than near-saturated vapour concentration.  
/ 4 hours, Rat

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**Skin Irritation:** May cause moderate skin irritation (but insufficient to classify).  
Prolonged/repeated contact may cause defatting of the skin, which can lead to dermatitis. Eye  
Irritation: Essentially non-irritating to eyes.

**Respiratory Irritation:** Not expected to be a respiratory irritant.

**Sensitization:** Not expected to be a skin sensitizer.

**Repeated Dose Toxicity:** Kidney: caused kidney effects in male rats, which are not considered relevant to humans.

**Mutagenicity:** Not expected to be mutagenic.

**Carcinogenicity:** Repeated exposure causes skin tumour promotion in experimental animals.

**Reproductive and Developmental Toxicity:** Not expected to be a developmental toxicant. Not expected to impair fertility

### SECTION 12: Ecological Information

#### 12.1. Toxicity

Acute Toxicity

Ingestion: Toxicity: LD50 > 13450 mg/kg

Skin: Toxicity: LD50 > 3240 mg/kg

Toxicity to Fish and Aquatic Invertebrates: Low toxicity: LC/EC/IC50 > 980 mg/l

Toxicity to Algae: Low toxicity: LC/EC/IC50 > 9800 mg/l

#### 12.2. Persistence/degradability:

Expected to be readily biodegradable. Oxidises rapidly by photo-chemical reactions in air.

#### 12.3. Bioaccumulation potential

Has the potential to bioaccumulate.

#### 12.4. Mobility

Floats on water. Adsorbs to soil and has low mobility.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6. Other adverse effects

No further relevant information available.

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### SECTION 13: Disposal Considerations

#### 13.1. Waste treatment methods

##### Appropriate disposal / Product Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system and surface water.

##### Uncleaned packagings:

Recommendation:

Waste disposal must meet criterias of both official and directives of 2008/98/EC, covering waste and dangerous waste

##### USA EPA

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

### SECTION 14. Transport Information

LAND (TDG): Not Regulated for Land Transport

LAND (DOT): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA): Not Regulated for Air Transport.

### SECTION 15. Regulatory Information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

WHMIS Classification: Not controlled

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the (M)SDS contains all the information required by the Controlled Products Regulations.

CEPA: All components of this material are either on the Canadian Domestic Substances List (DSL), exempt, or have been notified under CEPA.

NATIONAL CHEMICAL INVENTORY LISTING: AICS, IECSC, DSL, EINECS, ENCS, KECI, PICCS, TSCA

The Following Ingredients are Cited on the Lists Below: None.

--REGULATORY LISTS SEARCHED--

1 = TSCA 4, 3 = TSCA 5e 5 = TSCA 12b

2 = TSCA 5a2 4 = TSCA 6 6 = NPRI

#### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this preparation were not carried out.

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### SECTION 16: Other Information

#### Abbreviations:

ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose,  
LC: Lethal Concentration;HMIS: Hazardous Material information System;  
CAS No.: Chemical Abstract Service Registration Number,  
EC no: European Commission Number,  
OEL:Observable effect level  
WHMIS: Workplace Hazrdous material information system,  
TWA: Time weighted average  
ACGIH: American conference of industrial hygienist  
TLV: Test of limit values  
STEL: Short term exposure limit TSCA: The substance central act  
CLA: Comprehensive environmental, response, compensation and liability act OSHA:  
Occupation safety and health administration  
DSL: Domestic substance list  
NDSL: Non domestic substance list  
AICS: Australian inventory of chemical substances  
IECSC: Inventory of exiating chemical substances produced or imported in China  
EINECS: European inventory of existing commercial chemical substances  
KECI: Korean existing chemical inventory  
PICS: Philippine inventory of chemical substances

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Prepared by R&D dep.

Revised by Cem Dursunoglu (Code Art22)  
TSE Approved MSDS Specialist(GBF1877)

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