SAFETY DATA SHEET



Date of issue/Date of revision

8 January 2020

Version 17

Section 1. Identification

Product name

: 44GN098 BASE COMPONENT

Product code

: 44GN098 BASE COMPONENT

Other means of

: Not available.

identification Product type

: Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use

: Industrial applications.

Use of the substance/

: Coating.

mixture

Uses advised against

: Not applicable.

Manufacturer

: PPG Aerospace PRC-DeSoto

12780 San Fernando Road

Sylmar, CA 91342 Phone: 818 362 6711

Emergency telephone

; (412) 434-4515 (U.S.)

number

(514) 645-1320 (Canada) 01-800-00-21-400 (Mexico)

Section 2. Hazards identification

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 1A

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 69.5%

(Oral), 85.8% (Dermal), 69.5% (Inhalation)

This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

GHS label elements

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Section 2. Hazards identification

Hazard pictograms







Signal word

: Danger

Hazard statements

: Highly flammable liquid and vapor; Causes serious eye irritation.

May cause cancer.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Wash hands thoroughly after handling.

Response

: IF exposed or concerned: Get medical attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label

elements

: Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: 44GN098 BASE COMPONENT

| Ingredient name | % | CAS number |
|--|--|---|
| Gypsum butan-2-ol titanium dioxide dipraseodymium trioxide | ≥20 - ≤50 ≥10 - <20 ≥10 - ≤20 ≥10 - ≤20 | 13397-24-5 78-92-2 13463-67-7 12036-32-7 |
| crystalline silica, respirable powder (>10 microns) | ≥1.0 - ≤5.0 | 14808-60-7 |

SUB codes represent substances without registered CAS Numbers.

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Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids

apart for at least 10 minutes and seek immediate medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is

irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained

personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water

or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep

person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact: Defatting to the skin. May cause skin dryness and irritation.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation dryness cracking

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

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Section 4. First aid measures

Protection of first-aiders

: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing

media

: Use dry chemical, CO2, water spray (fog) or foam.

Do not use water jet.

Specific hazards arising from the chemical

: Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:

carbon oxides sulfur oxides metal oxide/oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

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Section 6. Accidental release measures

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Avoid exposure obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions

: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

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Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|---|--|
| E ypsum | ACGIH TLV (United States, 3/2019). |
| ,=,F= | TWA: 10 mg/m³ 8 hours. Form: Inhalable |
| | fraction |
| | OSHA PEL (United States, 5/2018). |
| | TWA: 5 mg/m ³ 8 hours. Form: Respirable |
| | fraction |
| | TWA: 15 mg/m³ 8 hours. Form: Total dust |
| butan-2-ol | ACGIH TLV (United States, 3/2019). |
| | TWA: 303 mg/m ³ 8 hours. |
| | TWA: 100 ppm 8 hours. |
| | OSHA PEL (United States, 5/2018). |
| | TWA: 450 mg/m ³ 8 hours. |
| | TWA: 150 ppm 8 hours. |
| titanium dioxide | OSHA PEL (United States, 5/2018). |
| | TWA: 15 mg/m³ 8 hours. Form: Total dust |
| | ACGIH TLV (United States, 3/2019). |
| | TWA: 10 mg/m³ 8 hours. |
| dipraseodymium trioxide | OSHA PEL (United States). |
| , | TWA: 5 mg/m³ Form: Respirable fraction |
| | TWA: 15 mg/m³ Form: Total dust |
| | ACGIH TLV (United States). |
| | TWA: 10 mg/m³ Form: inhalable dust |
| crystalline silica, respirable powder (>10 microns) | OSHA PEL Z3 (United States, 6/2016). |
| | TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: |
| | Respirable |
| | TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: |
| | Respirable |
| | OSHA PEL (United States, 5/2018). |
| | TWA: 50 µg/m³ 8 hours. Form: Respirable |
| | dust |
| | ACGIH TLV (United States, 3/2019). |
| | TWA: 0.025 mg/m ³ 8 hours. Form: |
| | Respirable fraction |

Key to abbreviations

| Α | = Acceptable Maximum Peak | S | = | Potential skin absorption |
|-------|--|------|---|----------------------------------|
| ACGIH | = American Conference of Governmental Industrial Hygienists. | SR | = | Respiratory sensitization |
| С | = Ceiling Limit | SS | = | Skin sensitization |
| F | = Fume | STEL | = | Short term Exposure limit values |
| IPEL | = Internal Permissible Exposure Limit | TD | = | Total dust |
| OSHA | Occupational Safety and Health Administration. | TLV | = | Threshold Limit Value |
| R | = Respirable | TWA | = | Time Weighted Average |
| Z | = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances | | | |

Consult local authorities for acceptable exposure limits.

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Section 8. Exposure controls/personal protection

procedures

Recommended monitoring: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection Skin protection

: Chemical splash goggles.

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

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Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. Color : Green.

Odor Not available. Not available. Odor threshold : Not available. рН **Melting point** : Not available. : >37.78°C (>100°F) **Boiling point**

: Closed cup: 22.22°C (72°F) Flash point

Auto-ignition temperature : Not available. Decomposition temperature : Not available. : Not available. Flammability (solid, gas) : Not available. Lower and upper explosive

(flammable) limits

Evaporation rate : Not available. : Not available. Vapor pressure Not available. Vapor density

Relative density : 1.56 Density (lbs/gal) : 13.02

: Insoluble in the following materials: cold water. Solubility

Partition coefficient: n-

octanol/water

: Not available.

: Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt) **Viscosity**

VOC : 313 g/l : 77.5 % Solid. (w/w)

Section 10. Stability and reactivity

: No specific test data related to reactivity available for this product or its ingredients. Reactivity

: The product is stable. **Chemical stability**

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

: When exposed to high temperatures may produce hazardous decomposition products. Conditions to avoid

Refer to protective measures listed in sections 7 and 8.

: Keep away from the following materials to prevent strong exothermic reactions: Incompatible materials

oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition

products

: Decomposition products may include the following materials: carbon monoxide, carbon

dioxide, smoke, oxides of nitrogen.

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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|---------------------------------|---------|-------------|----------|
| Jutan-2-ol | LC50 Inhalation Vapor | Rat | 48500 mg/m³ | 4 hours |
| | LD50 Oral | Rat | 2054 mg/kg | - |
| titanium dioxide | LC50 Inhalation Dusts and mists | Rat | >6.82 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |

Conclusion/Summary

: There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin: There are no data available on the mixture itself.Eyes: There are no data available on the mixture itself.Respiratory: There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary :: There are no data available on the mixture itself.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|--|------|---------|---------------------------------|
| Manium dioxide crystalline silica, respirable powder (>10 microns) | - | 2B 1 | Known to be a human carcinogen. |

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: 1

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|------------|----------|-------------------|---|
| butan-2-ol | 0 , | | Narcotic effects Respiratory tract irritation |

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Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Not available.

Target organs

: Contains material which causes damage to the following organs: liver, spleen, brain,

bone marrow.

Contains material which may cause damage to the following organs: kidneys, lungs, upper respiratory tract, immune system, skin, eyes, central nervous system (CNS), nose/

sinuses.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Defatting to the skin. May cause skin dryness and irritation.

ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain or irritation

watering redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:

irritation dryness cracking

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary

: There are no data available on the mixture itself. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many PPG products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting.

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Section 11. Toxicological information

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate

: There are no data available on the mixture itself.

effects

Potential delayed effects

There are no data available on the mixture itself.

Long term exposure

Potential immediate : There are no data available on the mixture itself.

effects

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or

dermatitis.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/ kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/ l) |
|----------------------------------|------------------|-------------------|--------------------------------|----------------------------------|---|
| MGN098 BASE COMPONENT butan-2-ol | 3853.6 | N/A | N/A | N/A | N/A |
| | 2054 | N/A | N/A | 48.5 | N/A |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|----------------------------------|-------------------------|----------|
| titanium dioxide | Acute LC50 >100 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |

Persistence and degradability

Not available.

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|-------------------------|--------|-----|-----------|
| butan-2-ol | 0.61 | - | low |

Mobility in soil

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Section 12. Ecological information

Soil/water partition coefficient (Koc)

: Not available.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

| | DOT | IMDG | IATA |
|---|------------------------|--------|------------------------|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class (es) | 3 | 3 | 3 |
| Packing group | II | II | II |
| Environmental hazards Marine pollutant substances | No. Not applicable. | | No. Not applicable. |

Additional information

: None identified. DOT : None identified. **IMDG** IATA : None identified.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

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Section 15. Regulatory information

United States

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2

EYE IRRITATION - Category 2A CARCINOGENICITY - Category 1A

HNOC - Defatting irritant

Composition/information on ingredients

| Name | % | Classification |
|--|--------------------------|---|
| butan-2-ol | ≥10 - <20 | FLAMMABLE LIQUIDS - Category 3 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 HNOC - Defatting irritant |
| titanium dioxide crystalline silica, respirable powder (>10 microns) | ≥10 - ≤20 ≥1.0 - ≤5.0 | CARCINOGENICITY - Category 2 CARCINOGENICITY - Category 1A |

SARA 313

Chemical name

CAS number

Concentration

Supplier notification

butan-2-ol

78-92-2

10 - 30

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

California Prop. 65

N WARNING: Cancer - www.P65Warnings.ca.gov.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health: 3 * Flammability: 3 Physical hazards: 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health: 3 Flammability: 3 Instability: 0

United States Page: 13/14

Product code 44GN098 BASE COMPONENT

Date of issue 8 January 2020

Version 17

Product name 44GN098 BASE COMPONENT

Section 16. Other information

Date of previous issue

: 7/4/2019

Organization that prepared

: EHS

the MSDS

Key to abbreviations

: ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available SGG = Segregation Group UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

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SAFETY DATA SHEET



Date of issue/Date of revision

4 December 2019

Version 6.01

Section 1. Identification

Product name

: 44GN098CAT CURING SOLUTION COMPONENT

Product code

: 44GN098CAT CURING SOLUTION COMPONENT

Other means of

: Not available.

identification

Product type

: Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use

: Industrial applications.

Use of the substance/

: Coating.

mixture

Uses advised against

: Not applicable.

Manufacturer

: PPG Aerospace PRC-DeSoto

12780 San Fernando Road

Sylmar, CA 91342 Phone: 818 362 6711

Emergency telephone

number

: (412) 434-4515 (U.S.)

(514) 645-1320 (Canada) 01-800-00-21-400 (Mexico)

Section 2. Hazards identification

OSHA/HCS status

: This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3

ACUTE TOXICITY (inhalation) - Category 4

SKIN IRRITATION - Category 2 **EYE IRRITATION - Category 2A** SKIN SENSITIZATION - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 30.2%

(Dermal), 68.7% (Inhalation)

GHS label elements

Hazard pictograms



Signal word

: Warning

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Date of issue 4 December 2019 Version 6.01

COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 2. Hazards identification

Hazard statements

: Flammable liquid and vapor.

Harmful if inhaled.

Causes serious eve irritation.

Causes skin irritation.

May cause an allergic skin reaction.

Precautionary statements

Prevention

: Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and

international regulations.

Supplemental label

elements

: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches,

drowsiness and nausea and may lead to unconsciousness or death. Emits toxic fumes

when heated.

Hazards not otherwise

classified

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: 44GN098CAT CURING SOLUTION COMPONENT

| Ingredient name | % | CAS number |
|---|------------------------|-----------------------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin nitroethane | ≥50 - ≤75 ≥20 - ≤34 | 25068-38-6 79-24-3 |

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

| | United States | Page: 2/13 |
|--|----------------------|------------|
|--|----------------------|------------|

Product code 44GN098CAT CURING SOLUTION Date of issue 4 December 2019 Version 6.01

COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids

apart for at least 10 minutes and seek immediate medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is

irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained

personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water

or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep

person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Harmful if inhaled.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

See toxicological information (Section 11)

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COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing

media

: Use dry chemical, CO2, water spray (fog) or foam.

: Do not use water jet.

Specific hazards arising from the chemical

Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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Hazardous thermal decomposition products

: Decomposition products may include the following materials:

carbon oxides nitrogen oxides

halogenated compounds

Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 6. Accidental release measures

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions

: Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

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COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|-------------------------------------|
| eaction product: bisphenol-A-(epichlorhydrin); epoxy resin | None. |
| nitroethane | ACGIH TLV (United States, 3/2019). |
| | TWA: 100 ppm 8 hours. |
| | TWA: 307 mg/m ³ 8 hours. |
| | OSHA PEL (United States, 5/2018). |
| | TWA: 100 ppm 8 hours. |
| | TWA: 310 mg/m ³ 8 hours. |

Key to abbreviations

| Α | = Acceptable Maximum Peak | S | Potential skin absorption |
|--------------|--|------|--|
| ACGIH | = American Conference of Governmental Industrial Hygienists. | SR | Respiratory sensitization |
| С | = Ceiling Limit | SS | Skin sensitization |
| F | = Fume | STEL | Short term Exposure limit values |
| IPEL | = Internal Permissible Exposure Limit | TD | = Total dust |
| OSHA | = Occupational Safety and Health Administration. | TLV | Threshold Limit Value |
| R | = Respirable | TWA | Time Weighted Average |
| Z | = OSHA 29 CFR 1910,1200 Subpart Z - Toxic and Hazardous Substances | | |

Consult local authorities for acceptable exposure limits.

procedures

Recommended monitoring: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

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Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Chemical splash goggles.

Skin protection

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COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 8. Exposure controls/personal protection

: Chemical-resistant, impervious gloves complying with an approved standard should be Hand protection

worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the

protection time of the gloves cannot be accurately estimated.

butyl rubber Gloves

Personal protective equipment for the body should be selected based on the task being **Body protection**

performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing

should include anti-static overalls, boots and gloves.

Appropriate footwear and any additional skin protection measures should be selected Other skin protection

based on the task being performed and the risks involved and should be approved by a

specialist before handling this product.

: Respirator selection must be based on known or anticipated exposure levels, the Respiratory protection

hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying

with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Boiling point

Physical state : Liquid.

Color : Not available. Not available. Odor : Not available. **Odor threshold** pH : Not available. **Melting point** : Not available. : >37.78°C (>100°F)

Flash point : Closed cup: 30.56°C (87°F)

Auto-ignition temperature : Not available. Decomposition temperature : Not available. Flammability (solid, gas) : Not available. Lower and upper explosive : Not available.

(flammable) limits

Evaporation rate : Not available. : Not available. Vapor pressure : Not available. Vapor density

Relative density : 1.13 : 9.43 Density (lbs / gal)

: Insoluble in the following materials: cold water. Solubility

Partition coefficient: n-

octanol/water

: Not available.

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Date of issue 4 December 2019 Version 6.01

COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 9. Physical and chemical properties

Viscosity : Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)

VOC : 339 g/l % Solid. (w/w) : 69

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.

Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions:

oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition

products

: Decomposition products may include the following materials: carbon monoxide, carbon

dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|-------------------|-----------------------------------|-------------------|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin | LD50 Dermal | Rabbit | >2 g/kg | - |
| nitroethane | LD50 Oral LC50 Inhalation Vapor LD50 Oral | Rat Rat Rat | 11.4 g/kg 6025 ppm 1.1 g/kg | - 4 hours - |

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-------|----------|-------------|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin | Skin - Moderate irritant | Rabbit | - | - | - |
| | Eyes - Moderate irritant | Rabbit | - | - | |

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

| | United States | Page: 8/13 |
|--|----------------------|------------|
|--|----------------------|------------|

Product code 44GN098CAT CURING SOLUTION Date of issue 4 December 2019 Version 6.01

COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 11. Toxicological information

| 3 | Route of exposure | Species | Result |
|---|-------------------|---------|-------------|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin | skin | Mouse | Sensitizing |

Conclusion/Summary

Skin : There are no data available on the mixture itself.Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Target organs: Contains material which causes damage to the following organs: brain.

Contains material which may cause damage to the following organs: blood, kidneys,

liver, upper respiratory tract, skin, eyes, central nervous system (CNS).

Aspiration hazard

Not available.

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Harmful if inhaled.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

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Product code 44GN098CAT CURING SOLUTION Date of issue 4 December 2019 Version 6.01

COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 11. Toxicological information

Conclusion/Summary

There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate : There are no data available on the mixture itself.

effects

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate : There are no data available on the mixture itself.

effects

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to

very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/ kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/ I) |
|--|------------------|-------------------|--------------------------------|----------------------------------|---|
| 44GN098CAT CURING SOLUTION COMPONENT reaction product: bisphenol-A-(epichlorhydrin); epoxy resin nitroethane | 3637.4 | 2536.9 | N/A | 11.4 | N/A |
| | 11400 | 2500 | N/A | N/A | N/A |
| | 1100 | N/A | N/A | 11 | N/A |

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Date of issue 4 December 2019 Version 6.01

COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|-----------------------|---------|----------|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin | Chronic NOEC 0.3 mg/l | Daphnia | 21 days |

Persistence and degradability

| Product/ingredient name | Test | Result | | Dose | | Inoculum |
|---|-------------------|-------------|------------|------|------------------|----------|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin | OECD 301F | 5 % - 28 da | ys | - | | - |
| Product/ingredient name | Aquatic half-life | | Photolysis | | Biodegradability | |
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | - | | - | | Not readily | |

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|---|--------|-----|-----------|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin | 3 | 31 | low |
| nitroethane | 0.18 | - | low |

Mobility in soil

Soil/water partition coefficient (Koc)

Not available.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

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Product code 44GN098CAT CURING SOLUTION Date of issue 4 December 2019 Version 6.01

COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

14. Transport information

| | DOT | IMDG | IATA |
|-----------------------------|------------------|---|--|
| UN number | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT | PAINT | PAINT |
| Transport hazard class (es) | 3 | 3 | 3 |
| Packing group | III | III | III |
| Environmental hazards | No. | Yes. | Yes. The environmentally hazardous substance mark is not required. |
| Marine pollutant substances | Not applicable. | (reaction product: bisphenol-A-(epichlorhydrin); epoxy resin) | Not applicable. |
| Product RQ (lbs) | 33034.5 | Not applicable. | Not applicable. |
| RQ substances | (2-nitropropane) | Not applicable. | Not applicable. |

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the

RQ (reportable quantity) transportation requirements.

imdg : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation

regulations.

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 3

ACUTE TOXICITY (inhalation) - Category 4

SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1

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Date of issue 4 December 2019 Version 6.01

COMPONENT

Product name 44GN098CAT CURING SOLUTION COMPONENT

Section 15. Regulatory information

Composition/information on ingredients

| Name | % | Classification |
|--|-----------|---|
| reaction product: bisphenol-A- (epichlorhydrin); epoxy resin nitroethane | ≥50 - ≤75 | SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 |

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health: 3 Flammability: 3 Physical hazards: 3

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Health: 3 Flammability: 3 Instability: 3

Date of previous issue : 10/6/2019

Organization that prepared

the MSDS

: EHS

Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

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