Section 1. Identification

GHS product identifier : Geon™ MB2828 Neutral Non-Orthophthalate
Chemical name : Mixture
CAS number : Mixture
Other means of identification : FO20029588
Product type : liquid

Relevant identified uses of the substance or mixture and uses advised against
Product use : Industrial applications. Plastics.

Supplier's details : POLYONE CORPORATION
33587 Walker Road, Avon Lake, OH 44012
1 (440) 930-1000 or 1 (866) POLYONE

Emergency telephone number (with hours of operation) : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Section 2. Hazards identification

This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. However, some vapors or contaminants may be released upon heating and the end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions. 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.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN SENSITIZATION - Category 1

GHS label elements
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Hazardous Compounds</td>
<td>0.3 - 1</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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

Description of necessary first aid measures

**Eye contact**
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

**Inhalation**
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact**
Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion**
Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Most important symptoms/effects, acute and delayed**

**Potential acute health effects**

<table>
<thead>
<tr>
<th>Mode of Exposure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

**Over-exposure signs/symptoms**
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.

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

Extinguishing media

Suitable extinguishing media : In case of fire, use water spray (fog), foam, dry chemical or CO₂.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products : In a fire or if heated, a pressure increase will occur and the container may burst.

May emit Hydrogen Chloride (HCl).

Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- 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.

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.
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. 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. 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. 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. Keep in the original container or an approved alternative made
from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

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.

Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. 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. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Hazardous Compounds</td>
<td>None.</td>
</tr>
</tbody>
</table>

Appropriate engineering controls: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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
Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

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.

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: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid [liquid]</td>
</tr>
<tr>
<td>Color</td>
<td>NO PIGMENT</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available</td>
</tr>
<tr>
<td>Burning time</td>
<td>Not available</td>
</tr>
<tr>
<td>Burning rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Flammability (solid, gas) : Not available.
Lower and upper explosive (flammable) limits
Lower: Not available.
Upper: Not available.
Vapor pressure : Not available.
Vapor density : Not available.
Relative density : Not available.
Solubility : Not available.
Solubility in water : Not available.
Partition coefficient: n-octanol/water : Not available.
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
SADT : Not available.
Viscosity
Dynamic: Not available.
Kinematic: Not available.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.
Chemical stability : Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid : Keep away from extreme heat and oxidizing agents.
Incompatible materials : Avoid contact with acetal homopolymers and acetyl homopolymers during processing.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Remarks - Oral:</th>
<th>Remarks - Inhalation:</th>
<th>Remarks - Dermal:</th>
<th>Conclusion/Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>No applicable toxicity data</td>
<td>No applicable toxicity data</td>
<td>No applicable toxicity data</td>
<td>Mixture. Not fully tested.</td>
</tr>
</tbody>
</table>
Irritation/Corrosion

Conclusion/Summary
Skin : Mixture. Not fully tested.
Eyes : Mixture. Not fully tested.
Respiratory : Mixture. Not fully tested.

Sensitization

Conclusion/Summary
Skin : Mixture. Not fully tested.
Respiratory : Mixture. Not fully tested.

Mutagenicity

Conclusion/Summary : Mixture. Not fully tested.

Carcinogenicity

Conclusion/Summary : Mixture. Not fully tested.

Reproductive toxicity

Conclusion/Summary : Mixture. Not fully tested.

Teratogenicity

Conclusion/Summary : Mixture. Not fully tested.

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : May cause an allergic skin reaction.
Ingestion: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:

Eye contact: No specific data.
Inhalation: No specific data.
Skin contact: Adverse symptoms may include the following:
irritation
redness
Ingestion: No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Short term exposure:
Potential immediate effects: Not available.
Potential delayed effects: Not available.

Long term exposure:
Potential immediate effects: Not available.
Potential delayed effects: Not available.

Potential chronic health effects:
Conclusion/Summary: Mixture. Not fully tested.

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:
Not available.

Section 12. Ecological information
Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Hazardous Compounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remarks - Acute - Fish:</td>
<td>No applicable toxicity data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remarks - Acute - Aquatic invertebrates:</td>
<td>No applicable toxicity data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remarks - Acute - Aquatic plants:</td>
<td>No applicable toxicity data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remarks - Chronic - Fish:</td>
<td>No applicable toxicity data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remarks - Chronic - Aquatic invertebrates:</td>
<td>No applicable toxicity data</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion/Summary: Not available.

Persistence and degradability

Conclusion/Summary: Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (KOC): Not available.

Other adverse effects: No known significant effects or critical hazards.

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. Avoid dispersal...
of spilled material and runoff and contact with soil, waterways, drains and sewers.

**United States - RCRA Acute hazardous waste "P" List:** Not listed

**United States - RCRA Toxic hazardous waste "U" List:** Not listed

### Section 14. Transport information

| International Air ICAO/IATA | : Consult mode specific transport rules |
| International Water IMO/IMDG | : Consult mode specific transport rules |

### Section 15. Regulatory information

| U.S. Federal regulations | United States - TSCA 12(b) - Chemical export notification: None of the components are listed. |
| United States - TSCA 4(a) - Final Test Rules: Not listed |
| United States - TSCA 4(a) - ITC Priority list: Not listed |
| United States - TSCA 4(a) - Proposed test rules: Not listed |
| United States - TSCA 4(f) - Priority risk review: Not listed |
| United States - TSCA 5(a)2 - Final significant new use rules: Listed 4-Nonylphenol, branched |
| United States - TSCA 5(a)2 - Proposed significant new use rules: Not listed |
| United States - TSCA 5(e) - Substances consent order: Not listed |
| United States - TSCA 6 - Final risk management: Not listed |
| United States - TSCA 6 - Proposed risk management: Not listed |
| United States - TSCA 8(a) - Chemical risk rules: Not listed |
| United States - TSCA 8(a) - Dioxin/Furane precursor: Not listed |
| United States - TSCA 8(a) - Chemical Data Reporting (CDR): Not determined |
| United States - TSCA 8(a) - Preliminary assessment report (PAIR): Listed Poly(dimethylsiloxane) Octocrilene 4-Nonylphenol, branched |
United States - TSCA 8(c) - Significant adverse reaction (SAR): Not listed
United States - TSCA 8(d) - Health and safety studies: Not listed
United States - EPA Clean water act (CWA) section 307 - Priority pollutants: Listed Vinyl chloride monomer
Zinc pyrithione
Miscellaneous Zinc Compounds
Phenol
2-Ethylhexanoic acid zinc salt

United States - EPA Clean water act (CWA) section 311 - Hazardous substances: Listed
United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Flammable substances: Not listed
United States - EPA Clean air act (CAA) section 112 - Accidental release prevention - Toxic substances: Not listed
United States - Department of commerce - Precursor chemical: Not listed

Clean Air Act Section 112(b) : Listed
Hazardous Air Pollutants (HAPs) : Not listed
Clean Air Act Section 602 Class I Substances : Not listed
Clean Air Act Section 602 Class II Substances : Not listed
DEA List I Chemicals (Precursor Chemicals) : Not listed
DEA List II Chemicals (Essential Chemicals) : Not listed

US. EPA CERCLA Hazardous Substances (40 CFR 302) not applicable

SARA 311/312
Classification : SKIN SENSITIZATION - Category 1

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary Hazardous Compounds</td>
<td>&gt;= 0.3 - &lt; 1</td>
<td>Fire hazard - Immediate (acute) health hazard - Delayed (chronic) health hazard</td>
</tr>
</tbody>
</table>
SARA 313
Not applicable.

State regulations
Massachusetts : None of the components are listed.
New York : None of the components are listed.
New Jersey : The following components are listed:
              Ethene, chloro-, homopolymer
Pennsylvania : None of the components are listed.
California Prop. 65
This product does not require a Safe Harbor warning under California Prop. 65.
United States inventory (TSCA 8b) : All components are listed or exempted.
Canada inventory : All components are listed or exempted.

International regulations

Inventory list
Australia : Not determined.
Canada : All components are listed or exempted.
China : Not determined.
Europe inventory : Not determined.
Japan : Not determined.
New Zealand : Not determined.
Philippines : Not determined.
Republic of Korea : Not determined.
Taiwan : Not determined.
Turkey : Not determined.
United States : All components are listed or exempted.

Section 16. Other information

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

<table>
<thead>
<tr>
<th>Health</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Physical hazards</td>
<td>0</td>
</tr>
</tbody>
</table>

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 SDSs 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.

History
Date of printing : 12/10/2018
Date of issue/Date of revision : 12/05/2018
Date of previous issue : 06/24/2016
Version : 1.2

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
UN = United Nations

References : Not available.

Notice to reader

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