

# SAFETY DATA SHEET



BEV3/BEV+/BET Battery ASM High Voltage

## Section 1. Identification

**GHS product identifier** : BEV3/BEV+/BET Battery ASM High Voltage  
**Product code** : Not available.  
**Other means of identification** : Not available.  
**Product type** : This product, under the normal conditions of use, is an exempt "ARTICLE" and not subject to OSHA's Hazard Communication Standard and its requirements for preparation of Safety Data Sheets (SDS).

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

**Product use** : Automotive  
**Area of application** : Industrial applications.

**Manufacturer** : General Motors LLC  
30400 Van Dyke Ave.  
Warren, MI 48093-2368  
United States  
www.gm.com  
Telephone: 1-800-814-3390 (GM Security)

**Emergency telephone number (with hours of operation)** : **Manufacturer:** 1-800-814-3390 (24/7)  
**Infotrac** 1-800-535-5053 (24/7)

## Section 2. Hazards identification

This product, under the normal conditions of use, is an exempt "ARTICLE" and not subject to OSHA's Hazard Communication Standard and its requirements for preparation of Safety Data Sheets (SDS). This SDS voluntarily offers helpful information for your safe handling and environmental care in unforeseeable circumstances.

**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

**Classification of the substance or mixture** : Not classified.

### GHS label elements

**Signal word** : No signal word.  
**Hazard statements** : No known significant effects or critical hazards.  
**Precautionary statements**  
**Prevention** : Not applicable.  
**Response** : Not applicable.  
**Storage** : Not applicable.  
**Disposal** : Not applicable.

**Hazards not otherwise classified** : None known.

**Date of issue/Date of revision** : 07/18/2022 **Date of previous issue** : 04/21/2022 **Version** : 2.01 1/12

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture  
**Other means of identification** : Not available.

Ingredient name	Other names	%	CAS number
Metal Oxide	-	≥25 - ≤50	-
Electrolyte	-	≥25 - ≤50	-
carbon	-	≥25 - ≤50	7440-44-0
copper	-	≥10 - ≤25	7440-50-8
aluminum, non flammable solid	-	≤10	7429-90-5
Ethene, 1,1-difluoro-, homopolymer	-	≤5	24937-79-9
Aluminum, Copper plate and inert materials	-	Balance	-

Under normal conditions of use, undamaged, closed batteries do not pose a health risk.

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 and hence require reporting in this section.**

## Section 4. First aid measures

**This product, under the normal conditions of use, is an exempt "ARTICLE" and not subject to OSHA's Hazard Communication Standard and its requirements for preparation of Safety Data Sheets (SDS). This SDS voluntarily offers helpful information for your safe handling and environmental care in unforeseeable circumstances.**

### Description of necessary first aid measures

- Eye contact** : The following first aid measures are required only in case of exposure to interior battery components after damage of the external battery casing.  
 Under normal conditions of use, undamaged, closed batteries do not pose a health risk.  
 If eye contact occurs with the interior battery electrolyte, immediately flush affected area with cool water for at least 5 minutes to remove any potential HF surface residue. Rinse with calcium gluconate eye wash.  
 Refer to local hospital for continued treatment.
- Inhalation** : The following first aid measures are required only in case of exposure to interior battery components after damage of the external battery casing.  
 Under normal conditions of use, undamaged, closed batteries do not pose a health risk.  
 Risk assessment should be conducted to determine the potential for inhalation. Get medical attention if symptoms occur.
- Skin contact** : The following first aid measures are required only in case of exposure to interior battery components after damage of the external battery casing.  
 Under normal conditions of use, undamaged, closed batteries do not pose a health risk.  
 If skin contact occurs with the interior battery electrolyte, immediately flush affected area with cool water for at least 5 minutes to remove any potential HF surface residue. Apply 2.5% Calcium Gluconate to the affected area and continuously massaged into the skin using appropriate PPE to prevent secondary HF exposure.  
 Refer to local hospital for continued treatment.
- Ingestion** : The following first aid measures are required only in case of exposure to interior battery components after damage of the external battery casing.  
 Under normal conditions of use, undamaged, closed batteries do not pose a health risk.  
 If ingestion to internal electrolyte occurs, Get medical attention.

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

#### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.

**Date of issue/Date of revision** : 07/18/2022 **Date of previous issue** : 04/21/2022 **Version** : 2.01 2/12

## Section 4. First aid measures

- Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

- Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**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.  
**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

This product, under the normal conditions of use, is an exempt "ARTICLE" and not subject to OSHA's Hazard Communication Standard and its requirements for preparation of Safety Data Sheets (SDS). This SDS voluntarily offers helpful information for your safe handling and environmental care in unforeseeable circumstances.

### Extinguishing media

- Suitable extinguishing media** : SMALL FIRE: Use dry chemical powder. water spray.  
 LARGE FIRE: Use water spray or fog.

- Unsuitable extinguishing media** : Do not use extinguisher containing metal (Class D, type II extinguisher).

- Specific hazards arising from the chemical** : No specific fire or explosion hazard.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 halogenated compounds  
 metal oxide/oxides  
 hydrogen fluoride

- 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.  
**Remark** : Avoid short circuiting the battery.

## Section 6. Accidental release measures

This product, under the normal conditions of use, is an exempt "ARTICLE" and not subject to OSHA's Hazard Communication Standard and its requirements for preparation of Safety Data Sheets (SDS). This SDS voluntarily offers helpful information for your safe handling and environmental care in unforeseeable circumstances.

### 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. 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** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

This product, under the normal conditions of use, is an exempt "ARTICLE" and not subject to OSHA's Hazard Communication Standard and its requirements for preparation of Safety Data Sheets (SDS). This SDS voluntarily offers helpful information for your safe handling and environmental care in unforeseeable circumstances.

### Precautions for safe handling

- Protective measures** : Follow the directions. Avoid short circuiting the battery. Avoid mechanical damage of the battery.  
Put on appropriate personal protective equipment (see Section 8).
- 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. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Metal Oxide	None.
Electrolyte	None.
carbon	None.
copper	<p><b>ACGIH TLV (United States, 1/2021).</b> TWA: 1 mg/m<sup>3</sup>, (as Cu) 8 hours. Form: Dust and mist TWA: 0.2 mg/m<sup>3</sup> 8 hours. Form: Fume</p> <p><b>NIOSH REL (United States, 10/2020).</b> TWA: 1 mg/m<sup>3</sup>, (as Cu) 10 hours. Form: Dusts and Mists</p> <p><b>OSHA PEL (United States, 5/2018).</b> TWA: 1 mg/m<sup>3</sup> 8 hours. Form: Dusts and Mists TWA: 0.1 mg/m<sup>3</sup> 8 hours. Form: Fume</p> <p><b>NIOSH REL (United States, 10/2020).</b> TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Respirable fraction TWA: 10 mg/m<sup>3</sup> 10 hours. Form: Total</p> <p><b>OSHA PEL (United States, 5/2018).</b> TWA: 5 mg/m<sup>3</sup>, (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m<sup>3</sup>, (as Al) 8 hours. Form: Total dust</p> <p><b>ACGIH TLV (United States, 1/2021).</b> TWA: 1 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction</p>
aluminum, non flammable solid	<p><b>NIOSH REL (United States, 10/2020).</b> TWA: 5 mg/m<sup>3</sup> 10 hours. Form: Respirable fraction TWA: 10 mg/m<sup>3</sup> 10 hours. Form: Total</p> <p><b>OSHA PEL (United States, 5/2018).</b> TWA: 5 mg/m<sup>3</sup>, (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m<sup>3</sup>, (as Al) 8 hours. Form: Total dust</p> <p><b>ACGIH TLV (United States, 1/2021).</b> TWA: 1 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction</p>
Ethene, 1,1-difluoro-, homopolymer	None.
Aluminum, Copper plate and inert materials	None.

**Appropriate engineering controls** : Not required under normal conditions of use.

**Environmental exposure controls** : Not required under normal conditions of use.

### Individual protection measures

**Hygiene measures** : Not required under normal conditions of use. Eyewash stations and emergency showers should be available in case of exposure to leaking battery cells.

**Eye/face protection** : Not required under normal conditions of use. If handling damaged battery cells leaking electrolyte, wear safety goggles.

#### Skin protection

**Hand protection** : Not required under normal conditions of use. If handling damaged battery cells leaking electrolyte, wear chemical resistant gloves.

**Body protection** : Not required under normal conditions of use. If handling damaged battery cells leaking electrolyte, wear a long disposable lab coat or apron.

**Other skin protection** : Not required under normal conditions of use.

**Respiratory protection** : A respirator is not needed under normal and intended conditions of product use.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

<b>Physical state</b>	: Solid. [Cell: Sealed pouch / Battery Pack.: Sealed Assembly]
<b>Color</b>	: Cell: Silver. / Battery Pack.: Black.
<b>Odor</b>	: Not available.
<b>Odor threshold</b>	: Not available.
<b>pH</b>	: Not available.
<b>Melting point</b>	: Not available.
<b>Boiling point, initial boiling point, and boiling range</b>	: Not available.
<b>Flash point</b>	: Not applicable.
<b>Evaporation rate</b>	: Not available.
<b>Flammability</b>	: Avoid short circuiting the battery.
<b>Lower and upper explosion limit/flammability limit</b>	: Not applicable.
<b>Vapor pressure</b>	: Not available.
<b>Relative vapor density</b>	: Not applicable.
<b>Relative density</b>	: Not available.
<b>Density</b>	: Not available.
<b>Solubility</b>	: Not available.
<b>Partition coefficient: n-octanol/water</b>	: Not applicable.
<b>Auto-ignition temperature</b>	: Not applicable.
<b>Decomposition temperature</b>	: Not available.
<b>SADT</b>	: Not available.
<b>Viscosity</b>	: Not applicable.
<b>Flow time (ISO 2431)</b>	: Not available.
<b>Particle characteristics</b>	
<b>Median particle size</b>	: Not available.
<b>Additional information</b>	
<b>Physical/chemical properties comments</b>	: No additional information.

## Section 10. Stability and reactivity

<b>Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>Chemical stability</b>	: The product is stable.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.
<b>Conditions to avoid</b>	: Keep away from heat and ignition sources. Avoid impact and friction. Do not open or disassemble.

## Section 10. Stability and reactivity

**Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials, acids and moisture.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced. If the battery cells are damaged, electrolyte may react with water to produce hydrogen fluoride (HF).

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
carbon	LD50 Oral	Rat - Female	>2000 mg/kg	-
copper	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5.11 mg/l	4 hours

#### Irritation/Corrosion

Not available.

#### Sensitization

Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

#### Teratogenicity

**Conclusion/Summary** : Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

**Information on the 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** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.

## Section 11. Toxicological information

<b>Inhalation</b>	: No specific data.
<b>Skin contact</b>	: No specific data.
<b>Ingestion</b>	: No specific data.

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

#### Short term exposure

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

#### Long term exposure

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

#### Potential chronic health effects

<b>General</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: 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)
carbon	2500	N/A	N/A	N/A	N/A

<b>Other information</b>	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), if the battery cells become mechanically damaged, exposure to the internal electrolyte solution may occur. The electrolyte solution may contain hydrofluoric acid (HF) and/or form HF in the presence of water. HF is highly corrosive and can cause burns to skin and eyes. Hydrofluoric (HF) acid burns require immediate and specialized first aid and medical treatment. Symptoms may be delayed up to 24 hours depending on the concentration of HF.
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## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
copper	Acute EC50 1100 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 2.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute IC50 16 µg/l Fresh water	Algae - Chlorella pyrenoidosa - Exponential growth phase	72 hours
	Acute IC50 5.4 mg/l Marine water	Aquatic plants - Plantae - Exponential growth phase	72 hours
	Acute LC50 0.072 µg/l Marine water	Crustaceans - Amphipoda - Adult	48 hours

**Date of issue/Date of revision** : 07/18/2022 **Date of previous issue** : 04/21/2022 **Version** : 2.01 8/12



## Section 12. Ecological information

aluminum, non flammable solid	Acute LC50 7.56 µg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours
	Chronic NOEC 2.5 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Chronic NOEC 7 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
	Chronic NOEC 0.02 mg/l Fresh water	Crustaceans - Cambarus bartonii - Mature	21 days
	Chronic NOEC 2 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
	Acute LC50 38000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 120 µg/l Fresh water	Fish - Oncorhynchus mykiss - Embryo	96 hours
	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days

**Conclusion/Summary** : Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

Not available.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

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

## Section 13. Disposal considerations

This product, under the normal conditions of use, is an exempt "ARTICLE" and not subject to OSHA's Hazard Communication Standard and its requirements for preparation of Safety Data Sheets (SDS). This SDS voluntarily offers helpful information for your safe handling and environmental care in unforeseeable circumstances.

**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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN3480	UN3480	UN3480
UN proper shipping name	Lithium ion batteries	LITHIUM ION BATTERIES	Lithium ion batteries
Transport hazard class(es)	9	9	9
Packing group	-	-	-
Environmental hazards	No.	No.	No.

### Additional information

**Special precautions for user** : Shipper must follow all applicable International, Federal, State, Provincial, and/or Local laws when preparing dangerous goods shipments including but not limited to classification, packaging, marking, labeling, and shipping dangerous goods.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
**United States inventory (TSCA 8b)**: All components are active or exempted.  
**Clean Water Act (CWA) 307**: copper

**Clean Air Act Section 112 (b) 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

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Not applicable.

#### Composition/information on ingredients

## Section 15. Regulatory information

Name	%	Classification
carbon	≥25 - ≤50	COMBUSTIBLE DUSTS
copper	≥10 - ≤25	COMBUSTIBLE DUSTS

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	copper	7440-50-8	≥10 - ≤25
	aluminum, non flammable solid	7429-90-5	≤10
<b>Supplier notification</b>	copper	7440-50-8	≥10 - ≤25
	aluminum, non flammable solid	7429-90-5	≤10

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.

### State regulations

**Massachusetts** : The following components are listed: COPPER; ALUMINUM

**New York** : The following components are listed: Copper

**New Jersey** : The following components are listed: COPPER; ALUMINUM

**Pennsylvania** : The following components are listed: COPPER FUME

### California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

## Section 16. Other information

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

Health	/	0
Flammability		0
Physical hazards		0
Personal protection		

**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.**

## Section 16. Other information

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 \(U.S.A.\)](#)



### [Procedure used to derive the classification](#)

Classification	Justification
Not classified.	

### [History](#)

<b>Date of issue/Date of revision</b>	: 07/18/2022
<b>Date of previous issue</b>	: 04/21/2022
<b>Version</b>	: 2.01
<b>Prepared by</b>	: Sphera Solutions
<b>Key to abbreviations</b>	: ATE = Acute Toxicity Estimate AMP = Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift 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 UN = United Nations
<b>References</b>	: HCS (U.S.A.)- Hazard Communication Standard International transport regulations

📌 Indicates information that has changed from previously issued version.

### [Notice to reader](#)

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.