SAFETY DATA SHEET



1. Identification

Product identifier DPA^{TM} Other means of identification None.

Dry Penetrating Agent Recommended use

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

CETCO, an MTI Company Company name **Address** 2870 Forbs Avenue Hoffman Estates, IL 60192

United States

General Information **Telephone** 800 527-9948

Website http://www.cetco.com/

E-mail safetydata@mineralstech.com

Emergency phone number Emergency 1.866.519.4752/1 760 476 3962

Americas 1.866.519.4752 (US, Canada, Mexico) 1 760 476 3962

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Acute toxicity, oral Category 4

> Acute toxicity, inhalation Category 2 Skin corrosion/irritation Category 1 Serious eye damage/eye irritation Category 1 Sensitization, skin Category 1

Environmental hazards Hazardous to the aquatic environment, acute Category 2

hazard

Hazardous to the aquatic environment,

Category 3

long-term hazard

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin **Hazard statement**

reaction. Causes serious eye damage. Harmful to aquatic life. Harmful to aquatic life with long

lasting effects.

Precautionary statement

Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Prevention

Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all

contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor/. Specific treatment (see on this label). If skin irritation or rash occurs: Get medical

advice/attention. Wash contaminated clothing before reuse.

Storage Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations. Disposal

Material name: DPA™ SDS US Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

27.01% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 27.01% of the mixture consists of component(s) of unknown long-term hazards to

the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Sulfamic acid		5329-14-6	70 - < 80
SODIUM DODECYLBENZENESULFON	ATE	25155-30-0	< 1
Other components below reportable levels			20 - < 30

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments

For the full text of the R phrases mentioned in this Section, see Section 15. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

4. First-aid measures

If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if Inhalation

cough or other symptoms develop. Call a physician if symptoms develop or persist.

Remove contaminated clothing immediately and wash skin with soap and water. Call a physician Skin contact

or poison control center immediately. Get medical attention if irritation develops or persists. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Launder contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing.

Ingestion Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into

the lungs.

Most important

symptoms/effects, acute and

delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause allergic skin reaction.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Use any media

suitable for the surrounding fires.

Unsuitable extinguishing

media

None known.

Specific hazards arising from

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Fire fighting

equipment/instructions

In the event of fire, cool tanks with water spray.

Cool containers exposed to flames with water until well after the fire is out. Specific methods

General fire hazards Not a fire hazard. No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions. protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Material name: DPA™ SDS US

4162 Version #: 11 Revision date: 13-August-2018 Issue date: 10-November-2014

Methods and materials for containment and cleaning up

This product is miscible in water. Should not be released into the environment. Stop leak if you can do so without risk. Collect spillage. Dike the spilled material, where this is possible. Prevent product from entering drains. Following product recovery, flush area with water. Large spills may be neutralized with dilute alkaline solutions of soda ash, or lime.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Do not flush into surface water or sanitary sewer system.

7. Handling and storage

Precautions for safe handling

Do not get this material in your eyes, on your skin, or on your clothing. Wash hands after handling and before eating. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid contact with skin and eyes. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

Keep locked-up. Store in a cool, dry place out of direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep this material away from food, drink and animal feed. Keep out of the reach of children.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-3 (29 CFR 1910.1000)

Additional components	Туре	Value	Form
INERT OR NUISANCE DUSTS	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

Biological limit values

Appropriate engineering

controls

No biological exposure limits noted for the ingredient(s).

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. Local exhaust is suggested for use, where possible, in enclosed or confined spaces.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield. Wear safety glasses;

chemical goggles (if splashing is possible).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Where contact is likely, wear chemical-resistant gloves, a chemical suit, rubber boots, and

chemical safety goggles plus a face shield. Wear appropriate chemical resistant gloves. Use of

butyl rubber or nitrile gloves is recommended

Respiratory protection Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels

exceeding the exposure limits. If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. When using do not eat or drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Use good

industrial hygiene practices in handling this material.

9. Physical and chemical properties

Appearance Powder.
Physical state Solid.

Form Solid. powder Color Dark violet.

Material name: DPA™ sps us

Odor None.

Odor threshold Not available.

Hq

Melting point/freezing point 552.94 °F (289.41 °C) estimated Initial boiling point and boiling 2669 °F (1465 °C) estimated

range

Not available. Flash point

Evaporation rate > 1

Not available. Flammability (solid, gas) Upper/lower flammability or explosive limits Flammability limit - lower Not available.

(%)

Flammability limit - upper

(%)

Not available.

Not available. Explosive limit - lower (%) Explosive limit - upper (%) Not available.

Vapor pressure 0.00001 hPa estimated

Vapor density Not available. Relative density Not available.

Solubility(ies)

Solubility (water) Complete **Partition coefficient** Not available.

(n-octanol/water)

Auto-ignition temperature Not available. **Decomposition temperature** Not available. Not available. **Viscosity**

Other information

Density 2.14 g/cm3 estimated

Percent volatile 0 % estimated 2.14 estimated Specific gravity

VOC **CARB**

10. Stability and reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport. Reactivity

Chemical stability Stable at normal conditions.

Possibility of hazardous

reactions

Will not occur. Hazardous polymerization does not occur.

Conditions to avoid Reacts violently with strong alkaline substances. This product may react with reducing agents. Do

not mix with other chemicals. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. This product may react with reducing agents. Incompatible with bases.

May react with strong bases or oxidizing agents.

Hazardous decomposition

products

Upon decomposition, this product may yield sulfur dioxide, carbon monoxide, carbon dioxide

and/or low molecular weight hydrocarbons.

11. Toxicological information

Information on likely routes of exposure

Inhalation May cause irritation to the respiratory system.

Skin contact Causes severe skin burns. May cause an allergic skin reaction.

Eye contact Causes serious eye damage.

Ingestion Causes digestive tract burns. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Material name: DPA™ SDS US

Information on toxicological effects

Acute toxicity Corrosive effects. Harmful if swallowed. May cause allergic skin reaction.

Product Species Test Results

DPA™

Acute Dermal

LD50 Rabbit 30930 mg/kg
Components Species Test Results

SODIUM DODECYLBENZENESULFONATE (CAS 25155-30-0)

<u>Acute</u>

Oral

LD50 Rat 438 mg/kg

Sulfamic acid (CAS 5329-14-6)

Acute Oral

LD50 Rat 1450 mg/kg

Skin corrosion/irritation Serious eye damage/eye Causes severe skin burns and eye damage.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Causes serious eve damage.

Carcinogenicity Not listed by ACGIH, IARC, NIOSH, NTP OR OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Not available.

Chronic effects Repeated or prolonged exposure may cause irritation of eyes and skin.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon

exposure to aquatic organisms and aquatic systems.

Components Species Test Results

SODIUM DODECYLBENZENESULFONATE (CAS 25155-30-0)

Aquatic

Crustacea EC50 Water flea (Ceriodaphnia dubia) 3.26 - 14.51 mg/l, 48 hours

Fish LC50 Fish 10.8 mg/L, 96 Hours

Rainbow trout, donaldson trout 3.2 - 5.6 mg/l, 96 hours

(Oncorhynchus mykiss)

Material name: DPA™ SDS US

4162 Version #: 11 Revision date: 13-August-2018 Issue date: 10-November-2014

^{*} Estimates for product may be based on additional component data not shown.

Test Results Components **Species**

Sulfamic acid (CAS 5329-14-6)

Aquatic

Fish LC50 Fathead minnow (Pimephales promelas) 14.2 mg/l, 96 hours

70.3 mg/L, 96 Hours

* Estimates for product may be based on additional component data not shown.

No data is available on the degradability of this product. Persistence and degradability

Bioaccumulative potential No data available. Partition coefficient n-octanol / water (log Kow)

SODIUM DODECYLBENZENESULFONATE 0.45

Mobility in soil No data available.

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation Other adverse effects

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material **Disposal instructions**

and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

Dispose in accordance with all applicable regulations. Local disposal regulations

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport information

DOT

UN2967 **UN number** Sulfamic acid **UN proper shipping name**

Transport hazard class(es)

Class 8 Subsidiary risk 8 Label(s) Packing group Ш

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IB8, IP3, T1, TP33 Special provisions

154 Packaging exceptions 213 Packaging non bulk 240 Packaging bulk

IATA

UN number UN2967 **UN proper shipping name** Sulfamic acid

Transport hazard class(es)

8 Class Subsidiary risk 8 Label(s) Ш Packing group **Environmental hazards** No.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo

aircraft

Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

Material name: DPA™ SDS US

IMDG

UN number UN2967 UN proper shipping name Sulfamic acid

Transport hazard class(es)

Class 8
Subsidiary risk Label(s) 8
Packing group III

Environmental hazards

Marine pollutant No.

EmS Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and

Not applicable.

the IBC Code

DOT



IATA; IMDG



15. Regulatory information

US federal regulations OSHA Process Sa

OSHA Process Safety Standard: This material is not known to be hazardous by the OSHA Highly

Hazardous Process Safety Standard, 29 CFR 1910.119.

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

No (Exempt)

chemical

SARA 313 (TRI reporting)

Not regulated.

Material name: DPA™ SDS US

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

(SDWA)

Not regulated.

US state regulations

This product does not contain a chemical known to the State of California to cause cancer, birth

defects or other reproductive harm.

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 10-November-2014 **Revision date** 13-August-2018

Version # 11

Further informationThis safety datasheet only contains information relating to safety and does not replace any product

information or product specification.

HMIS® ratings Health: 3

Flammability: 0 Physical hazard: 0

NFPA ratings Health: 4

Flammability: 0
Instability: 0

Material name: DPA™ SDS US

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The manufacturer expressly does not make any representations, warranties, or guarantees as to its accuracy, reliability or completeness nor assumes any liability, for its use. It is the user's responsibility to verify the suitability and completeness of such information for each particular use.

Third party materials: Insofar as materials not manufactured or supplied by this manufacturer are used in conjunction with, or instead of this product, it is the responsibility of the customer to obtain, from the manufacturer or supplier, all technical data and other properties relating to these and other materials and to obtain all necessary information relating to them. No liability can be accepted in respect of the use of this product in conjunction with materials from another supplier. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information

Hazard(s) identification: Hazard statement Hazard(s) identification: GHS Symbols

Accidental release measures: Personal precautions, protective equipment and emergency

procedures

Exposure controls/personal protection: Respiratory protection

Regulatory information: California Proposition 65

GHS: Classification

Material name: DPA™ sps us