Safety Data Sheet

according to US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Trade name (or substance name):
Print date: 07.31.2020

1. Identification

Product identifier

Trade name/designation
Product No.

Other means of identification

Product No.
EAN No.
Remark:

Recommended use of the chemical and restrictions on use

Recommended use:
Restrictions on use:

Supplier's details

Supplier	Manufacturer	Distributor
Name	Name	Name
Address	Address	Address
Telephone	Telephone	Telephone

Emergency phone number

24 hr. emergency phone number

Kommentiert [AH2]: Product identifier means the name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS. The product identifier should be differ between "substances" and "mixtures", For example "Synonym(s) are a product identifier for substances only as well as New Jersey Trade Secret registration No.

Kommentiert [AH3]: In case of substances the substance name should be stated here together with other identifier like CAS No., PMN or ACC No. if available

Kommentiert [AH4]: Barcode

Kommentiert [AH5]: Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Kommentiert [AH6]: Street, Postal Code / City, Country

2. Hazard(s) identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200

Acute toxicity (oral)	Category 1-4
Acute toxicity (dermal)	Category 1-4
Acute toxicity (Inhalation)	Category 1-4
Skin corrosion	Category 1, Sub-category 1A,1B, 1C
Skin irritation	Category 2
Eye damage	Category 1
Eye irritation	Sub-category 2A, 2B
Respiratory sensitizer	Category 1, Sub-category 1A, 1B
Skin sensitizer	Category 1, Sub-category 1A, 1B
Mutagen	Category 1A, 1B, 2
Carcinogen	Category 1A, 1B, 2
Reproductive toxicant	Category 1A, 1B, 2
Effects on or via lactation	Category 1
Target organ toxicity - single exposure	Category 1-3
Target organ toxicity - repeated exposure	Category 1-2
Aspiration toxicity	Category 1
Explosives	Unstable explosive, Division 1.1-1.6
Flammable gases	Category 1-2
Flammable aerosols	Category 1-2
Oxidizing gases	Category 1
Gases under pressure	Compressed gas, Liquified gas, Dissolved gas, Refrigerated liquefied gas
Flammable liquids	Category 1-4
Flammable solids	Category 1-2
Self-reactive substances and mixtures	Type A-G
Pyrophoric liquids	Category 1
Pyrophoric solids	Category 1
Self-heating substances and mixtures	Category 1-2
Substances or mixtures which, in contact with water, emit flammable gases	Category 1-3
Oxidizing liquids	Category 1-3
Oxidizing solids	Category 1-3
Organic peroxides	Type A-G
Corrosive to metals	Category 1
Pyrophoric gas	
Simple asphyxiant	
Combustible dust	

Kommentiert [AH7]: Differ between vapour, dust/mist, gas

Kommentiert [AH8]: APPENDIX A TO §1910.1200– HEALTH HAZARD CRITERIA
Effects on or via lactation shall be classified in a separate single category. Chemicals that are absorbed by women and have been shown to interfere with lactation or that may be present (including metabolites) in breast milk in amounts sufficient to cause concern for the health of a breastfed child, shall be classified to indicate this property hazardous to breastfed babies.
Therefore instead of "no designated number" the "Category 1" should be stated

Kommentiert [AH9]: Alternative: STOT SE, Category 1, 2 or 3

Kommentiert [AH10]: Alternative: STOT RE, Category 1 or 2

Kommentiert [AH11]: OSHA defined hazards should appear in section 2.1, not in section 2.3

Labeling according to US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Signal word

Hazard statements

Symbol(s)/Hazard pictograms

(Emergency overview)

Precautionary Statement(s)

Other labeling

Supplemental Hazard information

"x % of the mixture consists of ingredient(s) of unknown acute toxicity"
"x % of the mixture consists of ingredient(s) of unknown acute oral toxicity"
"x % of the mixture consists of ingredient(s) of unknown acute dermal toxicity"
"x % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity"

Right-To-Know laws

New Jersey (NJ):

"Contents unknown"
"Contents Partially Unknown"

Hazards not otherwise classified (HNOC)

The substance is an endocrine disruptor.

Kommentiert [AH12]: H-codes are not established in the US OSHA Hazard Communication standard

Kommentiert [AH13]: C.2.1.2 If the skull and crossbones pictogram is included, the exclamation mark pictogram shall not appear where it is used for acute toxicity; it may appear if it is triggered by Skin/Eye irritation

Kommentiert [AH14]: ANSI Z.400 standard suggests an emergency overview in this early part of the SDS: should include the appearance (color, physical state) and odor together with the hazard statements. Note that ANSI-approved standards are **voluntary**, however some of the content of these standards are incorporated into state and/or federal regulation "by reference" meaning that the regulations refer the reader to the standards without restating them. The current ANSI SDS standard is ANSI Z400.1/Z129.1-2010, but with HCS 2012 now in full regulatory effect and the GHS being continuously being refined by the United Nations, it is not clear what, if any, purpose Z400.1 currently has as it is not incorporated by reference in HCS 2012, but is rather partially derived/descended from it.

Kommentiert [AH15]: All P-statements must be shown. These are commonly organized into categories such as prevention, response, storage, disposal. P-codes are not established in the US OSHA Hazard Communication standard

Kommentiert [AH16]: OSHA recommends following GHS Revision 4 guidance, see https://www.osha.gov/laws-regs/standardinterpretations/2015-03-24

Kommentiert [AH17]: An adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).
These do not have to appear on the product label

Section 3: Composition/information on ingredients

Substance

Substance name
CAS No.
PMN No.
ACC No.
Molecular weight
Molecular formula
Purity
Synonymes
Stabilizers
Hazard impurities

Mixture

Description of the mixture: ***Aqueous solution of ABC.***
Hazardous ingredients:

Substance name	CAS No.	Concentration
Unobtanium	*1234-56-6*	*22.8 %*
Undecaobtanium	*6789-2-1*	*10.0 %*

Additional information:

Kommentiert [AH18]: Impurities and stabilizing *additives which are themselves classified and which contribute to the classification of the substance*

Kommentiert [AH19]: The chemical name and concentration (i.e., exact percentage) of all ingredients which are classified as health hazards and are:
Present above their cut-off/concentration limits or
Present a health risk below the cut-off/concentration limits.

Kommentiert [AH20]: The following is a reprint of the Restatement of Torts section 757, comment b (1939):
b. Definition of trade secret. A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers. It differs from other secret information in a business (see s759 of the Restatement of Torts which is not included in this Appendix) in that it is not simply information as to single or ephemeral events in the conduct of the business, as, for example, the amount or other terms of a secret bid for a contract or the salary of certain employees, or the security investments made or contemplated, or the date fixed for the announcement of a new policy or for bringing out a new model or the like. A trade secret is a process or device for continuous use in the operations of the business. Generally it relates to the production of goods, as, for example, a machine or formula for the production of an article. It may, however, relate to the sale of goods or to other operations in the business, such as a code for determining discounts, rebates or other concessions in a price list or catalogue, or a list of specialized customers, or a method of bookkeeping or other office management.

Kommentiert [AH21]: The concentration (exact percentages) of each ingredient must be specified except concentration ranges may be used in the following situations:
- A trade secret claim is made,
- There is batch-to-batch variation, or
- The SDS is used for a group of substantially similar mixtures.

Section 4: First-aid measures

Description of first aid measures
- **General information**
- **Following inhalation**
- **Following skin contact**
- **Following eye contact**
- **Following ingestion**
- **Self-protection of the first aider**

Most important symptoms and effects, both acute and delayed
- **Symptoms**
- **Effects**

Indication of any immediate medical attention and special treatment needed
- **Notes for the doctor**
- **Special treatment**

Kommentiert [AH22]: This section describes the initial care that should be given by untrained responders to an individual who has been exposed to the chemical. The required information consists of:
- Necessary first-aid instructions by relevant routes of exposure (inhalation, skin and eye contact, and ingestion).
- Description of the most important symptoms or effects, and any symptoms that are acute or delayed.
- Recommendations for immediate medical care and special treatment needed, when necessary.

Section 5: Fire-fighting measures

Extinguishing media
- **Suitable extinguishing Media**
- **Unsuitable extinguishing media**

Special hazards arising from the substance or mixture
- **Hazardous combustion products**

Advice for fire-fighters
- **Special protective equipment for firefighters**

Additional information

Kommentiert [AH23]: This section provides recommendations for fighting a fire caused by the chemical. The required information consists of:
- Recommendations of suitable extinguishing equipment, and information about extinguishing equipment that is not appropriate for a particular situation.
- Advice on specific hazards that develop from the chemical during the fire, such as any hazardous combustion products created when the chemical burns.
- Recommendations on special protective equipment or precautions for firefighters.

Section 6: Accidental release measures

Kommentiert [AH24]: This section provides recommendations on the appropriate response to spills, leaks, or releases, including containment and cleanup practices to prevent or minimize exposure to people, properties, or the environment. It may also include recommendations distinguishing between responses for large and small spills where the spill volume has a significant impact on the hazard. The required information may consist of recommendations for:
- Use of personal precautions (such as removal of ignition sources or providing sufficient ventilation) and protective equipment to prevent the contamination of skin, eyes, and clothing.
- Emergency procedures, including instructions for evacuations, consulting experts when needed, and appropriate protective clothing.
- Methods and materials used for containment (e.g., covering the drains and capping procedures).
- Cleanup procedures (e.g., appropriate techniques for neutralization, decontamination, cleaning or vacuuming; adsorbent materials; and/or equipment required for containment/clean up)

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel
Personal precautions
Protective equipment
Emergency procedures

For emergency responders
Personal protective equipment

Environmental precautions

Methods and materials for containment and cleaning up
For containment
For cleaning up
Other information

Reference to other sections

Kommentiert [AH25]: If appropriate Sections 8 and 13 may be referred to.

Additional information

Section 7: Handling and storage

Kommentiert [AH26]: This section provides guidance on the safe handling practices and conditions for safe storage of chemicals. The required information consists of:
- Precautions for safe handling, including recommendations for handling incompatible chemicals, minimizing the release of the chemical into the environment, and providing advice on general hygiene practices (e.g., eating, drinking, and smoking in work areas is prohibited).
- Recommendations on the conditions for safe storage, including any incompatibilities. Provide advice on specific storage requirements (e.g., ventilation requirements)

Precautions for safe handling
Protective measures
Advices on general occupational hygiene
Conditions for safe storage, including any incompatibilities

Section 8: Exposure controls/personal protection

Control parameters

Occupational exposure limit values

EXAMPLE

Substance name	CAS No.	ACGIH TLV	OSHA PEL	NIOSH REL
Unobtanium	1234-56-7	STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 260 mg/m^3	TWA: 150 ppm

Other exposure limit values

No EXAMPLE available

Biological limit values

Substance name	CAS No.	ACGIH BEI	Test material	Time of sampling	Parameter
Unobtanium	1234-56-7	35 mg/g creatine 15 µg/L	Urine (U) Whole Blood (B)	before next shift end of exposure or end of shift	Acetone

Exposure controls

Appropriate engineering controls

Personal protection equipment

Eye/face protection

Skin protection

Respiratory protection

Thermal hazards

Environmental exposure controls

Kommentiert [AH27]: This section indicates the exposure limits, engineering controls, and personal protective measures that can be used to minimize worker exposure. The required information consists of:
- OSHA Permissible Exposure Limits (PELs), American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the safety data sheet, where available.
- Appropriate engineering controls (e.g., use local exhaust ventilation, or use only in an enclosed system).
- Recommendations for personal protective measures to prevent illness or injury from exposure to chemicals, such as personal protective equipment (PPE) (e.g., appropriate types of eye, face, skin or respiratory protection needed based on hazards and potential exposure).
- Any special requirements for PPE, protective clothing or respirators (e.g., type of glove material, such as PVC or nitrile rubber gloves; and breakthrough time of the glove material).

Kommentiert [AH28]: The CAS number is for information only. Enforcement is based on the substance name. For an entry covering more than one metal compound measured as the metal, the CAS number for the metal is given - not CAS numbers for the individual compounds.

Kommentiert [AH29]: American Conference of Governmental Industrial Hygienists. ACGIH® is a private, not-for-profit, nongovernmental corporation. It is not a standard setting body. ACGIH® develops recommendations or guidelines to assist in the control of occupational health hazards. TLVs® and BEIs® are health-based values and are not intended to be used as legal standards. Threshold Limit Values (TLVs®) refer to airborne concentrations of chemical substances and represent conditions. For more information on TLVs®: www.acgih.org/TLV/. The TLVs® and BEIs® are copyrighted by ACGIH® and are not publicly available. Permission must be requested from ACGIH® to reproduce the TLVs® and BEIs®. The ACGIH® TLVs® are widely recognized as authoritative, and are required to be included on safety data sheets by the OSHA Hazard Communication Standard.

Kommentiert [AH30R29]:

Kommentiert [AH31]: PEL = Permissible Exposure Limit

Kommentiert [AH32]: NIOSH = National Institute for Occupational Safety and Health. REL = Recommended Exposure Limit

Kommentiert [AH33]: Exposure limit used or recommended by the chemical manufacturer, importer or employer, e.g. European DNEL value, experience based limit values.

Kommentiert [AH34]: ACGIH Biological Exposure Indices (BEIs®) are guidance values for assessing biological monitoring results – concentrations in biological media (e.g., blood, urine).

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance
Odor
Odor threshold
pH
Melting point/freezing point
Initial boiling point and boiling range
Flash point
Evaporation rate
Flammability (solid, gas)
Upper/lower flammability or explosive limits
- **Upper flammability or explosive limits**
- **Lower flammability or explosive limits**

Vapor pressure
Vapor density
Relative density
Solubility(ies)
Partition coefficient: n-octanol/water
Auto-ignition temperature
Decomposition temperature
Viscosity
- **Viscosity, dynamic**
- **Viscosity, kinematic**

Other information
- **Information with regard to physical hazard classes**
- **Other safety characteristics**

Kommentiert [AH35]: This section identifies physical and chemical properties associated with the substance or mixture. The minimum required information consists of:
- •Appearance (physical state, color, etc.);
- •Upper/lower flammability or explosive limits;
- •Odor;
- •Vapor pressure;
- •Odor threshold;
- •Vapor density;
- •pH;
- •Relative density;
- •Melting point/freezing point;
- •Solubility(ies);
- •Initial boiling point and boiling range;
- •Flash point;
- •Evaporation rate;
- •Flammability (solid, gas);
- •Partition coefficient: n-octanol/water;
- •Auto-ignition temperature;
- •Decomposition temperature; and
- •Viscosity.

The SDS may not contain every item on the above list because information may not be relevant or is not available. When this occurs, a notation to that effect must be made for that chemical property. Manufacturers may also add other relevant properties, such as the dust deflagration index (Kst) for combustible dust, used to evaluate a dust's explosive potential

Kommentiert [AH36]: See for detailed structure the EN version of the EU REACH SDS template

Kommentiert [AH37]: See for detailed structure the EN version of the EU REACH SDS template

Section 10: Stability and reactivity

Reactivity

Chemical stability

Possibility of hazardous reactions

Conditions to avoid

Incompatible materials

Hazardous decomposition products

Kommentiert [AH38]: This section describes the reactivity hazards of the chemical and the chemical stability information. This section is broken into three parts: reactivity, chemical stability, and other.

Kommentiert [AH39]: Description of the specific test data for the chemical(s). This data can be for a class or family of the chemical if such data adequately represent the anticipated hazard of the chemical(s), where available.

Kommentiert [AH40]: •Indication of whether the chemical is stable or unstable under normal ambient temperature and conditions while in storage and being handled.
•Description of any stabilizers that may be needed to maintain chemical stability.
•Indication of any safety issues that may arise should the product change in physical appearance.

Kommentiert [AH41]: Indication of the possibility of hazardous reactions, including a statement whether the chemical will react or polymerize, which could release excess pressure or heat, or create other hazardous conditions. Also, a description of the conditions under which hazardous reactions may occur

Kommentiert [AH42]: List of all conditions that should be avoided (e.g., static discharge, shock, vibrations, or environmental conditions that may lead to hazardous conditions).

Kommentiert [AH43]: List of all classes of incompatible materials (e.g., classes of chemicals or specific substances) with which the chemical could react to produce a hazardous situation.

Kommentiert [AH44]: List of any known or anticipated hazardous decomposition products that could be produced because of use, storage, or heating. (Hazardous combustion products should also be included in Section 5 (Fire-Fighting Measures) of the SDS.)

Section 11: Toxicological information

Toxicokinetics, metabolism and distribution

Non-human toxikological data
Human toxicological data

Information on toxicological effects

- **Acute toxicity**
  - **Acute oral toxicity**
  - **Acute dermal toxicity**
  - **Acute inhalation toxicity**
- **Skin corrosion/irritation**
- **Serious eye damage/irritation**
- **Respiratory or skin sensitization**
- **Germ cell mutagenicity**

Kommentiert [AH45]: This section identifies toxicological and health effects information or indicates that such data are not available. The required information consists of:
- Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact). The SDS should indicate if the information is unknown.
- Description of the delayed, immediate, or chronic effects from short- and long-term exposure.
- The numerical measures of toxicity (e.g., acute toxicity estimates such as the LD50 (median lethal dose)) - the estimated amount [of a substance] expected to kill 50% of test animals in a single dose.
- Description of the symptoms. This description includes the symptoms associated with exposure to the chemical including symptoms from the lowest to the most severe exposure.
- Indication of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA

Kommentiert [AH46]: See for detailed structure the EN version of the EU REACH SDS template

Kommentiert [AH47]: Differ between Substances and Mixtures – see European SDS Template for structure. For Mixtures for example the ATEmix is one possible effect dose if the mixture is not tested.

Kommentiert [AH48]: Differ between “vapour”, “gas” and “dust/mist”

Carcinogenicity

Practical experience/human evidence:
Animal data:
Other information:

Ingredient	ACGIH	IARC	NTP RoC	OSHA
Unobtanium	A2 - Suspected Human Carcinogen	Group 2A: "Probably carcinogenic to humans"	Known To Be A Human Carcinogen	Listed Standard No.: 1910.XXXX

Assessment / classification: ***Limited evidence of human carcinogenicity.***

Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
Aspiration hazard

Symptoms related to the physical, chemical and toxicological characteristics

In case of ingestion
In case of skin contact
In case of inhalation
In case of eye contact

Kommentiert [AH49]: A.6.4 Classification of carcinogenicity
A.6.4.1 Chemical manufacturers, importers and employers evaluating chemicals may treat the following sources as establishing that a substance is a carcinogen or potential carcinogen for hazard communication purposes in lieu of applying the criteria described herein:
A.6.4.1.1 National Toxicology Program (NTP), "Report on Carcinogens" (latest edition);
A.6.4.1.2 International Agency for Research on Cancer (IARC) "Monographs on the Evaluation of Carcinogenic Risks to Humans" (latest editions)
A.6.4.2 Where OSHA has included cancer as a health hazard to be considered by classifiers for a chemical covered by 29 CFR part 1910, Subpart Z, Toxic and Hazardous Substances, chemical manufacturers, importers, and employers shall classify the chemical as a carcinogen.
Indication is required of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA.

Kommentiert [AH50]: IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
Group 3 - Not Classifiable as to Carcinogenicity in Humans
Group 4 - Probably not carcinogenic to humans

Kommentiert [AH51]: NTP (National Toxicology Program)
"Known To Be A Human Carcinogen"
"Reasonably Anticipated to be a Human Carcinogen"
"Not listed"

Kommentiert [AH52]: OSHA (Occupational Safety and Health Administration of the US Department of Labor)
Either the substance is listed and show a standard No. or not.

Section 12: Ecological information (Non-mandatory)

Toxicity
Aquatic toxicity
Sediment toxicity
Terrestrial toxicity

Persistence and degradability

Bioaccumulative potential

Mobility in soil

Endocrine disrupting properties

Other adverse effects
Ozone depletion potential (ODP)
Photochemical ozone creation potential (POCP)
Global warming potential (GWP)

Additional ecotoxicological information

Kommentiert [AH53]: This section provides information to evaluate the environmental impact of the chemical(s) if it were released to the environment. The information may include:
- Data from toxicity tests performed on aquatic and/or terrestrial organisms, where available (e.g., acute or chronic aquatic toxicity data for fish, algae, crustaceans, and other plants; toxicity data on birds, bees, plants).
- Whether there is a potential for the chemical to persist and degrade in the environment either through biodegradation or other processes, such as oxidation or hydrolysis.
- Results of tests of bioaccumulation potential, making reference to the octanol-water partition coefficient (Kow) and the bioconcentration factor (BCF), where available.
- The potential for a substance to move from the soil to the groundwater (indicate results from adsorption studies or leaching studies).
- Other adverse effects (e.g., environmental fate, ozone layer depletion potential, photochemical ozone creation potential, endocrine disrupting potential, and/or global warming potential).

Kommentiert [AH54]: Not mandatory, but The SDS must also contain Sections 12 through 15, to be consistent with the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS), but OSHA will not enforce the content of these sections because they concern matters handled by other agencies.

Section 13: Disposal considerations (Non-mandatory)

Resource Conservation and Recovery Act (RCRA)
- **Waste from residues/unused products**
  - **Industry and EPA hazardous waste number**
  - **RCRA Waste Hazard Code**
- **Contaminated packaging**

California Hazardous Waste Control Law (HWCL)
- **Waste from residues/unused products**
  - **California Hazardous Waste Codes**
- **Contaminated packaging**

Kommentiert [AH55]: This section provides guidance on proper disposal practices, recycling or reclamation of the chemical(s) or its container, and safe handling practices. To minimize exposure, this section should also refer the reader to Section 8 (Exposure Controls/Personal Protection) of the SDS. The information may include:
- Description of appropriate disposal containers to use.
- Recommendations of appropriate disposal methods to employ.
- Description of the physical and chemical properties that may affect disposal activities.
- Language discouraging sewage disposal.
- Any special precautions for landfills or incineration activities

The regulations governing hazardous waste identification, classification, generation, management and disposal are found in title 40 CFR parts 260 through 273.

Kommentiert [AH56]: Not mandatory

Kommentiert [AH57]: The RCRA regulations are contained in title 40 of the Code of Federal Regulations (CFR) parts 239 through 282. The CFR is a collection of all federal regulations codified and enforced by all federal agencies. Title 40 – Protection of the Environment - contains all of the regulations governing EPA's programs.

Section 14: Transport information (Non-mandatory)

Land transport (US DOT ground)
- **UN number or ID number**
- **Proper Shipping Description**
- **Transport hazard class(es)**
- **Packing group**
- **DOT Marine Pollutant**
- **Reportable Quantity (RQ)**
- **Emergency Response Guide Number**

Air transport (ICAO-TI / IATA-DGR)
- **UN number or ID number**
- **UN proper shipping name**
- **Transport hazard class(es)**
- **Packing group**
- **Special Provisions**
- **Special precautions for user**

Sea transport (IMDG)
- **UN number or ID number**
- **UN proper shipping name**
- **Transport hazard class(es)**
- **Packing group**
- **Marine pollutant**
- **Special Provisions**
- **Special precautions for user**

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

Additional information

Kommentiert [AH58]: This section provides guidance on classification information for shipping and transporting of hazardous chemical(s) by road, air, rail, or sea. The information may include:
UN number (i.e., four-figure identification number of the substance)
UN proper shipping name.
Transport hazard class(es).
Packing group number, if applicable, based on the degree of hazard.
Environmental hazards (e.g., identify if it is a marine pollutant according to the International Maritime Dangerous Goods Code (IMDG Code)).
Guidance on transport in bulk (according to Annex II of MARPOL 73/783 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code)).
Any special precautions which an employee should be aware of or needs to comply with, in connection with transport or conveyance either within or outside their premises (indicate when information is not available).

Kommentiert [AH59]: Not mandatory

Kommentiert [AH60]: ANSI Z400 standard

Kommentiert [AH61]: ANSI Standard

Kommentiert [AH62]: ANSI Standard

Section 15: Regulatory information

Federal Regulations

OSHA chemical-specific standards

Toxic Substances Control Act (TSCA)
TSCA Chemical Substance Inventory
TSCA exemptions
TSCA Rules
TSCA Section 5 Import Requirements
Pre-manufacture Notice (PMN):
Significant New Use Rule (SNUR):

Kommentiert [AH63]: This section identifies the safety, health, and environmental regulations specific for the product that is not indicated anywhere else on the SDS. The information may include:
- Any national and/or regional regulatory information of the chemical or mixtures (including any OSHA, Department of Transportation, Environmental Protection Agency, or Consumer Product Safety Commission regulations)

Kommentiert [AH64]: Chemical Hazards and Toxic Substances (https://www.osha.gov/SLTC/hazardoustoxicsubstances/requirements.html)
Chemical hazards and toxic substances are addressed in specific OSHA standards for general industry, shipyard employment, marine terminals, longshoring and construction. This section highlights OSHA standards and documents related to chemical hazards and toxic substances.

Kommentiert [AH65]: The Toxic Substances Control Act (TSCA) Chemical Substance Inventory contains all existing chemical substances manufactured, processed, or imported in the United States that do not qualify for an exemption or exclusion under TSCA.
Section 8 (b) of the Toxic Substances Control Act (TSCA) requires EPA to compile, keep current and publish a list of each chemical substance that is manufactured or processed, including imports, in the United States for uses under TSCA. Also called the "TSCA Inventory" or simply "the Inventory," it plays a central role in the regulation of most industrial chemicals in the United States.
As part of EPA's commitment to strengthen the management of chemicals and increase information on chemicals, the Agency provides free access to the inventory online: https://ofmpub.epa.gov/sor_internet/registry/substreg/LandingPage.do

Kommentiert [AH66]: TSCA section 3(7) defines the term "manufacture" to include import. This means that the section 5(a)(1)(B) requirement to submit a pre-manufacture notice ("PMN") to EPA at least 90-days before commencing non-exempt commercial manufacture of a new chemical substance in the United States applies to the import of new chemicals, as does the section 5(a)(2) significant new use notice ("SNUN") requirement. Thus, the intended import of chemical substances can trigger the following provisions:
- Premanufacture notice provisions for new chemicals in 40 CFR Part 720
- Significant new use notice provisions in 40 CFR Part 721
- Premanufacture notice exemptions for new chemicals in 40 CFR Part 723
- Reporting requirements for inter-generic microorganisms in 40 CFR Part 725

The Superfund Amendments and Reauthorization Act (SARA)

SARA Title III Section 311/312 Hazard Categories

Refer to section 2 of the safety data sheet

SARA Title III Section 313 Toxic Release Inventory

The substance is subject to the reporting requirements.

Chemical name	CAS No.	De minimis% Limit
Unobtanium	*1234-56-7*	*1.0*

SARA Title III Section 302 Reportable quantities / Threshold planning quantity

Reporting requirements for extremely hazardous substances to be followed.

Hazardous substance	CAS No.	Statutory code	RCRA waste No.	TPQ
Unobtanium	1234-56-7	-	-	1,000 lb

Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Section 112(r) of the Clean Air Act

Substance name	CAS/313 Category Codes	EPCRA Section 302 (EHS) TPQ	EPCRA Section 304 (EHS) RQ	CERCLA RQ	EPCRA Section 313 Toxic Chemicals	RCRA Code
Unobtanium	*1234-56-6*	*100 lb*	*100 lb*	*10 lb*	*313*	-

Clean Water Act (CWA)

Toxic Pollutant List:

The substance is listed.

Priority Pollutants List

The substance is listed.

Kommentiert [AH67]: The Superfund Amendments and Reauthorization Act amended the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) on October 17, 1986. The Superfund Amendments and Reauthorization Act of 1986 (SARA) reflected EPA's experience in administering the complex Superfund program during its first six years and made several important changes and additions to the program.

Kommentiert [AH68]: https://www.epa.gov/toxics-release-inventory-tri-program/tri-listed-chemicals
Toxics Release Inventory (TRI) Program:
In general, chemicals covered by the Toxics Release Inventory (TRI) Program are those that cause one or more of the following:
- Cancer or other chronic human health effects
- Significant adverse acute human health effects
- Significant adverse environmental effects

The current TRI toxic chemical list contains 767 individually listed chemicals and 33 chemical categories. (This includes the PFAS chemicals added by the National Defense Authorization Act in December 2019.)

Kommentiert [AH69]: Reportable Quantities for EPCRA EHSs
As required by EPCRA Section 302(a)(2), EPA published a list of extremely hazardous substances (EHSs) that require the reporting of releases to state and local authorities. EHSs and their RQs are codified in 40 CFR Part 355, Appendix A and B. The RQs for EHSs are based on the substance's acute lethal toxicity.
Releases of CERCLA HSs are reportable to the National Response Center (NRC) as well as the state and local authorities.

Kommentiert [AH70]: For hazardous substances only

Kommentiert [AH71]: For hazardous substances only

Kommentiert [AH72]: Priority Pollutants are a set of chemical pollutants for which EPA has developed analytical test methods. The current list of 126 Priority Pollutants, shown below, can also be found at 40 CFR Part 423, Appendix A.

Other Federal Regulations

Federal Controlled Substances Act (CSA)
Chemical Diversion and Trafficking Act
This substance and its salts are listed as Precursor Chemicals by the Chemical Diversion and Trafficking Act of 1988.
This substance is listed as an Essential Chemical by the Chemical Diversion and Trafficking Act of 1988.

Chemical Weapon Convention (CWC)
This chemical is classified as an Unscheduled Discrete Organic Chemical (UDOC) or PSF chemical (phosphorus, sulfur or fluorine chemical).
EPA Pesticide Registration Number:

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
EPA Registration Number
Active ingredient(s)

Kommentiert [AH73]: The EPA Registration Number (EPA Reg. No.) appears on the label of all registered pesticides sold in the United States. To search for a particular Section 3 registration, enter the entire registration number (including the hyphen with no leading zeroes (i.e. 123456-12345), enter just the company number (the first set of digits before the hyphen) to search for all products related to that company (i.e. 123456).

Regional regulatory information

State Laws and Regulations
California's Safe Drinking Water Act (SDWA)
California Proposition 65 list of chemicals
The substance is listed.

Right-to-Know laws
California
New Jersey
Pennsylvania
Illinois
Louisiana
Massachusetts
Minnesota
Rhode Island

National Inventories

Section 16: Other information

NFPA	Health	Fire	Instability	Special
Hazard Codes	*3	3	0	hazards W
HMIS®	Health hazards	Flammability	Physical hazards	Personal protection
	*2	3	0	A

Key literature references and sources for data
Training advice
Abbreviations and acronyms
Indication of changes
Additional information

Kommentiert [AH74]: This section indicates when the SDS was prepared or when the last known revision was made. The SDS may also state where the changes have been made to the previous version. You may wish to contact the supplier for an explanation of the changes. Other useful information also may be included here.

Kommentiert [AH75]: * = Chronic health hazard, 0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Kommentiert [AH76]: 0 = Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials
1 = Exposure could cause irritation but only minor residual injury even if no treatment is given
2 = Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given
3 = Short exposure could cause serious temporary or residual injury even though prompt medical attention was given
4 = Very short exposure could cause death or serious residual injury even though prompt medical attention was given

Kommentiert [AH77]: 0 = Materials that will not burn
1 = Must be preheated before ignition can occur
2 = Must be moderately heated or exposed to relatively high temperature before ignition can occur
3 = Liquids and solids that can be ignited under almost all ambient conditions
4 = Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily

Kommentiert [AH78]: 0 = Normally stable, even under fire exposure conditions, and are not reactive with water
1 = Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently
2 = Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water
3 = Capable of detonation or explosive reaction, but requires a strong initiating source or must be heated under confinement before initiation, or reacts explosively with water
4 = Readily capable of detonation or of explosive decomposition or reaction at normal temperatures and pressures

Kommentiert [AH79]: Special hazards:
W = Reacts with water in an unusual or dangerous manner
OX = Oxidizer, allows chemicals to burn without an air supply
SA = Simple asphyxiant gas

Kommentiert [AH80]: Although widely used, note that ACA's Hazardous Materials Identification System (HMIS®) is proprietary. HMIS® attempts to convey full health warning information to all employees while NFPA is meant primarily for fire fighters and other emergency responders. **Key point: HMIS® is not intended for emergency circumstances**.